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WORLD MEDICINE*

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I APPRECIATE very much the honor of being asked to present the opening address at this important symposium on World Medicine. For many years, in fact since 1913, immediately following my graduation first as pediatric and then as West Medical intern on the staff of the Massachusetts General Hospital, I have taken a keen interest in our international medical relationships, and it is very gratifying to have seen the early stages of the evolution of this country's more active participation. But let me present first a brief summary of the important story of the development of World Medicine in general.

HISTORY

Scientific medicine began several centuries before Christ when such pioneers as Hippocrates directed the attention of their contemporaries and descendants to the scientific aspects of health and disease which had hitherto been under the control of the priests of primitive religions, of soothsayers, and of magicians. These beginnings of scientific medicine, at least so far as we have records of them, were located in the Near East, particularly in Asia Minor, Mesopotamia, and Egypt. It is quite possible that there will be discovered in the course of current and future archeologic excavations, in Asia Minor particularly, that the Hittites may have developed more knowledge of disease than we are aware of. Meanwhile, through those centuries and for a millennium after Christ there was relatively little advance in medical knowledge. What was known was, however, widely distributed through the Mediterranean world by whatever ruling power was in control at the time. After Egypt the Minoans and then the Phoenicians spread their civilization throughout the Mediterranean area before the Greeks and Romans came into power. All this was important in the development of the first medical school which can actually be labeled as such, founded at Salerno about the year 1000, when a Greek, a Roman, a Jew, and an Arab established the first medical faculty. The emphasis at Salerno was on health rather than on disease. This was what one might have expected in view of the very small amount of information then extant concerning the various diseases themselves. Unfortunately, it is true that, despite tremendous advances in our knowledge of diseases in every civilized country today, we seem to have fallen behind our remote ancestors in the pursuit of positive health. We can still take a leaf from the rules of health collected and presented at Salerno in the 11th and 12th centuries. I have an interesting early English translation (1541) printed at the request of King Henry VIII called "The Regimen of Health from Salerno." When Salerno faded from the scene the remarkable schools in northern Italy, particularly those at Bologna and Padua, took its place, and for centuries right up into the 18th, Italy was the medical mecca for students and young physicians. William Harvey himself, as was the custom in his day, for 4 years at the turn of the century (1599–1603) studied in Padua and brought back to England from his Italian teachers (Andrea Cesalpino, Fabricius Aquapendente, and others) knowledge which he fitted together in his notable discovery of the circulation of the blood. This year, 1957, we are celebrating the tercentenary of his death.

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* Opening Address delivered at the 26th Annual Scientific Assembly of The Medical Society of the District of Columbia, October 14, 1957.

While this slow development of scientific medicine evolved from the Near East into Europe, medicine remained in a very primitive state in most of the rest of the world, through much of Asia, in Northern Europe, among the American Indians, and in Africa, and as a matter of fact in some of those places it is only now just beginning to emerge. During the last two centuries, largely through the slow but potent development of printing and of transportation, the centers of medical education and study have spread widely. In the 18th and 19th centuries, Paris, Leiden, London, Vienna, Edinburgh, Dublin, Berlin, Stockholm, Zurich, and many other cities in Europe were sought by students from all the rest of the world, from Latin America, the United States, from India, and other parts of Asia. No one race or country or group or university held its preëminence for long. There were brilliant leaders and ardent students in every land, but a certain amount of civilizing following the difficulties of early pioneering perforce preceded the establishment of medical centers. Medicine was already world-wide but only to a small fraction of its present extent.

Through the course of slow evolution and the more rapid effect of the two World Wars, the Western Hemisphere has now taken a leading role in world medicine. This is true both in the United States and in Latin America. I would like to cite what Mexico has done in my own field. In 1944 the National Institute of Cardiology was inaugurated under the directorship of Ignacio Chavez, brilliant leader of Latin-American medicine. Two years later in Mexico City the first International Council of Cardiology was formed and that international body organized the First World Congress of Cardiology, held in Paris in 1950, and inaugurated the International Society of Cardiology. By the time that the Second World Congress of Cardiology met in Washington in 1954, 50 nations were represented. It was truly international. The Third World Congress of Cardiology will assemble in Brussels next September. I should, however, add that other groups have been already meeting internationally for a good many years, especially the physiologists. I attended one of their triennial meetings in Groningen in Holland as early as 1913.

The destruction of medical facilities and personnel in much of the old world in the two World Wars was a potent accelerating force, helping to bring to the fore the growing importance of medicine in the western world. We in many of the cities in the United States have had the experience in the last half generation of finding ourselves the teachers rather than the pupils. Both my father in 1880 and I in 1913 went to Europe to finish our medical education. I still visit Europe frequently and learn much from my colleagues there, but I have gone also in late years to exchange information and even to teach rather than to study, which was the habit of most of our medical men a hundred years ago.

And now finally to complete this introductory history of world medicine, one should mention the medical activities of the League of Nations, established after the First World War, and of the United Nations, with WHO situated in Geneva following the Second World War. These bodies were established with inadequate budgets. Although they have done an important job, their accomplishments have been far less than should be possible in the future. Most recently there has been organized the World Medical Association, a tie for those not already closely associated in specialty groups.

Current Problems

As I see these problems there are chiefly four: First, there is that of acquiring knowledge of geographic pathology. This has come slowly, in large part because of lack of adequate definitions, of interest in international relationships, and of travel funds. In 1934 I attended a meeting in Utrecht, in Holland, which was called a Congress of Geographic Pathology. In the introductory remarks the Chairman, Professor Anitschkov of Russia, prophesied that the meeting would be largely a failure. The subject of the meeting was arteriosclerosis, and unfortunately there had been no unanimity as to the definition of arteriosclerosis, and so statistical data from different lands were not comparable. In some places there had been concentration on atherosclerosis and in others other types of arterial changes. Something worthwhile did come of the Congress but not nearly as much as should be possible at meetings today.

The second current problem in all this is that of the assumption of responsibility in the pursuit of world medicine. Whose responsibility is it? Once upon a time it was on the shoulders of pioneers of the old foundations like the Rockefeller. These foundations can still serve a most important purpose, but now, of course, one will look eventually to bodies like the WHO and the new World Medical Association and specialty groups, but these bodies take a long time to get underway. Meanwhile, national agencies, like our own Public Health Service, and private world and national groups, such as the International Society of Cardiology, the American Heart Association, and the National Institute of Cardiology of Mexico, all play a role. Sometimes private individuals can do some important pioneering with less red tape, and I should like to pay tribute to many leaders in various aspects of world medicine who have not waited for the establishment of large coöperative endeavors.

The third important current problem is that of the actual efforts to control diseases. Much of this has been done by these same groups that have taken the responsibility, but the pressure has been so great in the attack on infectious diseases and undernutrition, which still overwhelm large parts of the world, for example, India, China, and Africa, that too little attention has been directed to the epidemiologic study and control of more chronic, noninfectious, but very serious diseases, such as cancer, heart disease, and mental illness.

The fourth problem, which has largely been left for the future but which was the main focus of some of our ancestors in Greek, Roman, and medieval days, that of developing programs of positive health throughout the world, has not yet even been widely recognized. Some of us physicians, as we grow older, are joining now with our colleagues who serve as public health officials throughout this country and the rest of the world in the realization that it is not simply theoretically important but that it is practical, possible, and essential to try to practice preventive medicine with respect to the noninfectious diseases as well as to control the epidemics that have ravaged man since the dawn of civilization and before it.

What Is Actually Being Done?

I would speak of three major world-wide efforts in the evolution of world medicine. In the first place, there is still needed in vast areas of the world relief work and relief missions. Here, social as well as medical workers must coöperate. This reminds me of the time years ago when Richard Cabot established medical social service at the Massachusetts General Hospital. It was customary in the Outpatient Department for the doctor to prescribe a crutch or an important medicine or better food or a vacation, but the patient would be utterly unable because of poverty or for other reasons to carry out the doctor's orders. This was the origin of hospital social service. This situation is still true for many populations the world over. The engineer to build dams, to purify water, to build adequate shelter, and to establish transportation is often much more important at first than the physician or the teacher who can later take advantage of the groundwork that is being prepared. I myself have taken part in relief missions, particularly in one after the First World War in Eastern Macedonia, when we were occupied with an effort to control exanthematous typhus in the population there, much of which was manifest in those returning from captivity in other lands. This was under the Red Cross, which I should have mentioned earlier as a very important historical milestone in the history of world medicine. Incidentally, in Turkey and elsewhere next year there will be celebrated the centennial of Florence Nightingale's efforts to improve the lot of the wounded and sick soldiers in the Crimean War. Much of this type of medical mission will be needed for years to come, whether or not there are any more wars.

The second type of world medicine is educational. Teams and individuals expert in certain fields have gone and are going to exchange information in medicine and surgery, in public health, and in other fields—an invaluable development which is the next stage following that of relief. Along with this medical educational activity is that of lay education in disease and in public health. Last year I had the privilege of addressing a distinguished group of doctors and laymen, including the President and Cabinet of Finland, concerning our own experience in the United States in the study and control of heart disease. It happened that Finland has had, so far as I know, the only other national heart association besides our own which has included large numbers of laymen as well as physicians in its membership right from its inauguration. Another of my most gratifying experiences has been that of serving with the Unitarian Service Committee missions of an intereducational type in Czechoslovakia in 1946 and in Greece and Italy in 1948. In these countries we physicians, a dozen or more in each case, have established enduring friendships and continue to correspond with our colleagues in those countries. And the same thing is now true of the U.S.S.R., ever since a few of us went to Moscow a year ago. Although these are small items, nevertheless they are important. Enough drops finally fill the bucket and, of course, it is here in this educational world medical activity that the many international congresses, conferences, and meetings belong.

The third, and to my mind the most important future world medical activity of all, is that of international research. This is the peak. Here doctors from many different lands can work together in some one or another country on problems common to the health of their own countries and of many others, learning from their investigations, working with the same or comparable technics, and at the same time establishing international medical friendships which can play their role, even though seemingly a minor one, in the eventual establishment of world peace. We doctors do have as patients on occasion leaders in business, in science, in art, in the professions, and in government too, who in their own circles may cultivate some of the zeal for international friendship and peace that most medical men believe in and practice. This month, in fact this very afternoon, I myself am flying to Rome and thence to the toe of Italy to take a small part in an international research on epidemiology in the olive-oil-eating population of that countryside, in which study there will be physiologists, biochemists, and internists from Italy, the United States, Yugoslavia, France, Britain, Greece, Finland, and Japan. A year ago on a visit to Moscow some of us sounded out our Russian medical colleagues concerning their possible future activity in international epidemiologic research. They were keenly interested. Such coöperation, however, grows slowly. Only the other day, in fact, I had word from Moscow of the acceptance by 4 physicians of our invitation to them to come soon to work with us in America. One of these physicians will come to the University of Minnesota, 1 to us in Boston, and 2 to Howard Rusk in New York.

WHAT OF THE FUTURE?

The future, I believe, is bright. We must keep everlastingly at this business of strengthening our international medical activities which will be useful to ourselves medically as well as to other countries. What we have learned by studies in Japan, Italy, and elsewhere have been just as important as studies that we have done in this country; in fact, on occasion, they have been probably more important. Incidentally, one of the essential needs of the future will be the world-wide application of new knowledge about health and disease in an effort to introduce programs of positive health throughout the world. All this can become eventually routine world public health.

By way of WHO and the World Medical Association and other pioneering by private individuals and groups, international coöperation such as I have recounted should grow steadily. An interesting challenge accepted by the WHO in Geneva only a couple of years ago when some of us visited its Section on Nutrition has been that of expanding the definition of malnutrition to include overnutrition as well as undernutrition. Much of the important work of the world is being done by overnourished and physically inactive individuals whose health and even whose lives are in hazard because of those adverse factors. This is comparable to our current concern about the neglect of the adequate education of our more gifted young people, lost in our mass of educatees. Epidemiologic studies which have only just begun can be carried out not only locally and nationally in the U.S.A., but even more importantly all over the world. Somebody, somewhere, somehow, and sometime must do them. Again I want to pay tribute to the pioneers who have done more than sit in armchairs discussing the pros and cons. They, of course, have only scratched the surface. Some of their early conclusions may or may not be wrong, but they have at least set the stage and the work must be done.

In conclusion, I want to express my optimism concerning the future of world medicine. I believe that we are at the dawn of a new era. One last word—let me end with two very brief quotations, the first from Lucy Larcom's "Three Old Saws"—"If the world seems cold to you, kindle fires to warm it," and the second from Bayard Taylor's "Napoleon at Gotha": "Men's lives are chains of chances and history their sum."

POSTURAL MYONEURALGIA: INTEGRATION OF THE ACROPARESTHESIA SYNDROMES

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Washington

THE TERM "acroparesthesia" has been used to designate a neurologic syndrome since 1893.[1] It was introduced as a purely descriptive term denoting peripheral paresthesias of the extremities. The syndrome to which the term was applied in 1893 was not new but had been described in detail previously by several authors.[2-6] This syndrome cannot be accurately defined today, as a review of current literature quickly demonstrates, but for the purpose of discussion it is generally recognized as a benign condition affecting middle-aged women particularly and characterized by nocturnal paresthesias of the upper extremities with pain and stiffness of the hands. These symptoms are usually relieved by activity. In the past 50 years a great number of terms have been offered to designate this syndrome and relatively minor variations of it. Some of these terms emphasize the nocturnal feature or the painful feature or restriction of symptoms to the upper extremities. A list of these "synonyms" is given in table 1. This list indicates a need for a clinical reappraisal of this area of neurology and a simplification of the nomenclature. It is the purpose of this study to redefine the clinical aspects of this disorder.

In addition to the terms listed in table 1, the acroparesthesia syndrome has been associated with another ill-defined term, i.e., "vasomotor neurosis." This term was introduced by Cahen (1863) and associated with disorders of the upper extremities by Nothnagel in 1867. It stemmed from the physiological studies of Claude Bernard (1852) concerning vasomotor phenomena. The discoveries of Bernard were incorporated into the clinical concepts of the period. Following Nothnagel's suggestion, Cassirer[7] and also Clark[8] theorized that vasomotor disturbances were of etiological significance in acroparesthesia syndromes.

This influence is reflected currently in many works in which the "acroparesthesia syndrome" is treated under headings such as "vasomotor neuroses" or "angioneuroses."

TABLE 1
Postural Myoneuralgia
ACROPARESTHESIA SYNDROMES

Acroparesthesia—Schultze
Acrodysesthesia—Goodhart
Brachialgia statica paresthetica—Wartenberg
Schultze-Wartenberg Syndrome—Hassin
Brachialgia statica dysesthetica—Benson and Inman
Brachialgia paresthetica nocturna—Schulte
Nyctalgia paresthetica—Froment and Garde
Nocturnal acroparesthesia—Sigwald and Grossiord
Acroparesthalgia—Bonduelle
Acromelalgia—Tinel
Acroparesthesia of pregnancy
Radicular acroparesthesia—Bonduelle
Global acroparesthesia—Bonduelle
Tired arm syndrome—Ford
Nocturnal dysesthesias—Hassin
Nocturnal cervicobrachial paresthesias—Froment and Wegelin
Nocturnal painful acroparesthesias—deSeze and Godlewski

In some works, two types of acroparesthesia syndromes are described, the "Schultze type" and the "Nothnagel type." The latter exhibits vasomotor phenomena clinically, whereas the former does not. In other respects the two varieties are regarded as identical. These concepts have given rise to the group of terms listed in table 2 describing the "vasomotor-acroparesthesia syndromes" or else indicating a general category of which the acroparesthesia syndromes are subvarieties. By implication the autonomic nervous system is involved in these disorders.

Though no attempt has heretofore been made to clarify the nomenclature in this area of neurology, many have pointed out the confusion. Walshe[9] indicated that "vasomotor neurosis" was a meaningless term. The terms listed in table 2 are not more meaningful. In 1950 Pritchard[10] pointed out that the term "acroparesthesia syndrome" had become meaningless by virtue of its loose application. This opinion is apparently widely shared inasmuch as many current authoritative works on neurology do not deal with the acroparesthesia syndromes.

TABLE 2

Associated Terms

Vasomotor neurosis—Nothnagel
Acroneurosis—Dana
Vasomotor-trophoneurosis—Cassirer
Paresthetic neurosis—Collins
Angioneurosis—Whiting
Organic neurosis—Pritchard

The clinical condition denoted by the terms listed in table 1 is very common and very poorly understood. Only recently has an effective method of diagnosis and treatment been evolved. It is based on a thorough review and integration of the clinical information in the literature relating to the concepts referred to in table 1 and on an examination which includes observations not ordinarily made in a neurologic examination, because they are more closely related to the fields of orthopedics and physical medicine.

It is apparent that a designation is desirable under which one can unify the clinical data dispersed in the literature under the terms listed in table 1. It is also desirable that such a designation be inclusive enough to permit integration of other closely related aspects of neurology, orthopedics, and physical medicine along with the acroparesthesia syndromes under a meaningful term. "Postural myoneuralgia" was previously suggested as a useful term to describe a large group of clinical disorders in which alterations of posture are of fundamental etiological significance and in which the symptoms are of both muscular and direct neural origin.[11] The integration of the acroparesthesia syndromes, a cornerstone of postural myoneuralgia, is presented below.

Postural Myoneuralgia

INCIDENCE

Previous reports of incidence are of little value because diagnostic criteria have varied so widely. In a series of 250 patients with postural disorders referable to the thorax and upper extremities, 26 complained primarily or exclusively of paresthesias of the arms and would have been considered to have one of the syndromes listed in table 1, namely an "acroparesthesia" syndrome. Despite the numerous large series of cases previously reported, the condition is often still regarded as rare. Ormerod[4] in 1883 said it was common. Putnam[3] reported 31 cases before the American Neurological Association in 1880. Sigwald and Grossiord[12] stated that it is "infinitely common," and Godlewski[13] referred to it as the most common painful affliction of the upper extremity.

It is most commonly encountered in women but by no means exclusively, as has often been suggested in the literature. Walshe[9] stated that "the patients are women." Pritchard[10] wrote that the patients were "almost exclusively women." DeSeze and Godlewski[14] stated that they had not seen a typical case in a man. Numerous authors, however, have reported cases in men. Putnam[3] in 1880 pointed out that it occurs in "strong healthy men," but the observation has been ignored. One of the best clinical descriptions is Jelliffe's description[15] of his own symptoms. Froment,[16] in a series of 150 cases, found that 27 were males. Twenty-five per cent of the cases of Bonduelle[17] also occurred in males. In my own series of 26 cases roughly 25 per cent occurred in males.

Symptoms induced by alterations of posture are, however, very common in middle-aged women. This fact led early authors to postulate a relation of these symptoms to the menopause, and this speculation was in turn the basis of numerous endocrine therapies which proved valueless. Despite many statements to the contrary there is no relationship between this condition and the menopause or to the menopausal age group. Ekbom[18] in a series of 21 cases found that only 2 began in the climacterium. Seven of the 20 cases reported by Brown and Moersch[19] were aged 17 to 35 at the time of onset of symptoms. In Putnam's early report,[3] 25 of the cases were below age 40 and only 12 were older. Even a cursory review of the literature indicates that the condition is common in all age groups. Putnam wrote in 1880 that "neither the male sex nor vigorous persons are entirely exempt from this affection," and Benson and Inman[20] (1956) encountered the problem in women who were young and "rarely debilitated, tired, and overworked," as has often been suggested.

SYMPTOMS

Intermittency of symptoms is common. The duration of paresthesias and/or pain may be a few minutes or several hours. Chronicity is a prominent characteristic of the condition. Duration of symptoms for 5 or 10 years is not uncommon. Occasionally patients are seen who have had symptoms for 15 or 20 years, and Brown and Moersch[19] reported symptoms of 50 years' duration. Prolonged symptoms may consist of frequently recurring episodes of discomfort usually lasting 3 or 4 weeks at a time. Capriciousness of the course of events, however, is at times outstanding. A night of discomfort may be followed by a night of comfort or absence of symptoms for a week and then return of symptoms, etc. Fluctuation of intensity of symptoms from day to day or night to night is also common.

Paresthesias. Paresthesias of the hands are the common presenting complaint.[21, 22] DeSeze and Godlewski[14] stated that the paresthesias were usually bilateral. Others have found unilateral paresthesias to be most common. Paresthesias may shift from arm to arm, or, if unilateral, become bilateral, so that such distinctions are of little significance. All of the fingers in both hands may be involved or any individual finger or group of fingers. Paresthesias are not confined to either peripheral nerve or dermatome distribution and are of no localizing significance.[17, 23] Patients describe the paresthesias variously as sensations of burning, tingling, numbness, or "pins and needles." A sensation that the hands are swollen may be present without objective evidence of swelling.

The paresthesias are not confined to the hands but may be present in the arm or forearm with or without involvement of the fingers.[14] A sustained grip with the hands often induces paresthesias.[24] By definition, paresthesias and pain are confined to the upper extremities by most authors. This is too restricted a definition. Pain and paresthesias referred to the head, neck and thorax must be included as well as paresthesias of the lower extremities. Paresthesias in these latter distributions, however, are poorly understood, and their exact relationship to the syndrome under discussion awaits further clinical study.

Pain. Bonduelle[17] stated that pain ultimately replaced paresthesias in two-thirds of the cases. Certain it is that pain is as common a complaint as paresthesias.[3, 4, 10, 16, 17, 21] Both are often present, but either may be present alone.[17] Hassin[23] pointed out that pain may dominate the symptomatology. The pain may consist of painful paresthesias, or the combination of peripheral paresthesias and radiating arm pain may be present.[22] Pain over the dorsal forearm is common and easily misinterpreted as being of local origin.[9] The pain may be severe. Jelliffe,[15] describing the symptoms in himself, stated that the pain was "agonizing." Pain and paresthesias are often worse at night. This has given rise to the description of syndromes such as "painful nocturnal acroparesthesia" and "nocturnal dysesthesias."

Some patients have symptoms only at night.[14, 24] It has been pointed out that symptoms are more common during the second half of the night and upon awakening in the morning.[13, 17, 22, 25] Some patients have repeated episodes of discomfort which may awaken them several times during the night.[25, 26] Symptoms usually subside in 15 to 20 minutes with activity. Symptoms may be worse at night but present continuously day and night.[10] In a few patients, symptoms are more severe or present only during the day.[9, 14] A few patients have pain at night, with paresthesias only during the day.[16] To describe the syndrome as nocturnal is, therefore, clearly inaccurate. In the series of deSeze and Godlewski[14] only 18 of 50 cases had symptoms exclusively at night.

DeSeze and Godlewski and others[17, 26] pointed out that the patients who had symptoms during the day often noted that the onset of discomfort was precipitated by, or associated with immobilization, prolonged sitting, attending the theater, or lying down during the day.[21] Activity relieves these patients. Statements that the condition is aggravated by work and relieved by rest are, of course, directly contrary to this.[9, 22, 26] Those who advise rest as therapy admit that it is often not adequte treatment.[24] It is apparent that there is great variability of symptoms in relation to activity, inasmuch as immobilization relieves some patients and aggravates symptoms in others.[13] The same is true of activity involving only the upper extremities.[22] It is characteristic that activity of the arms relieves paresthesias that occur during immobilization.[17, 24, 26] Rubbing the hands and moving the arms relieve symptoms. It is common for the patient with only nocturnal discomfort to have symptoms much increased after a day of active use of the arms. Elevation of the arms sometimes gives relief, but if work activity requires prolonged elevation of the upper extremities, it almost invariably exaggerates the discomfort.[10, 13] Sometimes simple passive elevation of the arms increases symptoms. Positioning of the head rarely alters symptoms.

Pain and paresthesias when present together may be bilateral or unilateral, and if bilateral, more severe on one side than the other. If unilateral, symptoms may shift from one side to the other or become bilateral after having been unilateral for either a short or a long period.[27] Pain may extend into the neck and shoulders and may be confused with other conditions described primarily in the fields of orthopedics and physical medicine.

Vasomotor symptoms. Flushing, pallor, cyanosis, hyperhidrosis, and swelling may be seen in the hands, as reported by a number of observers.[2, 3, 7, 9, 10, 14, 21, 25, 28] It has also been noted by a great number of observers that such symptoms are occasionally aggravated by cold and relieved by warmth.[2, 12, 14, 17] The weight of observations in the literature indicates that though such symptoms are definitely a part of this disorder they are relatively uncommon. Objective swelling of the hands on the contrary is fairly common.[14, 26] Patients who wear rings are particularly aware of objective swelling of the hands on awakening in the morning.

Motor symptoms. Stiffness of the hands and loss of facility and dexterity for fine movements are common complaints. Loss of strength in the hands is also common and most notable in the early morning. It is usual for patients to complain of inability to butter bread, cut an orange, or be unable to perform other ordinary breakfast-time tasks. Patients complain that they drop small objects from their hands frequently.

SIGNS

Many authors have stated that there are no objective signs. The paucity of abnormal signs has been regarded as characteristic of the condition, if not a diagnostic criterion. It is certainly true that objective signs are not prominent, but they are not as rare as often stated in the literature and there are sufficient findings demonstrable on careful examination to permit accurate, objectively based diagnosis.

Abnormalities of posture. Although many authors[9, 17, 27, 29] have recognized the influence of postural factors in the syndromes listed in table 1, a review of postural alterations has not been made an integral part of the clinical examination in these cases. It is the scope of the postural influence which has not received the attention it deserves. Indeed, a "mechanical" etiology of cervicobrachial disorders has been widely supported but without relation to the most obvious physiologic mechanics, posture.

The most commonly observed postural abnormality associated with paresthesias of the upper extremities is a tilt of the shoulder girdle. This may be associated with either a postural or structural lateral curvature of the spine. It is commonly encountered in the absence of any lateral curvature of the spine. The thoracic asymmetry induced by this alteration of posture appears to far outweigh the significance of abnormal ribs or abnormal muscles in the production of brachial symptoms. Examination of the ordinary chest roentgenogram frequently confirms the presence of a shoulder girdle tilt. When shoulder girdle tilt is a habitual postural adjustment, it is common to note its disappearance during the course of clinical examination when the patient's attention is called to its presence.

It is important that each patient be carefully observed for shoulder tilt. It is not a pathognomonic sign and, of course, occurs in the absence of the disorder here under discussion. However, when associated with paresthesias of the upper extremities, it is an important sign. It must be looked for both posteriorly and anteriorly and is often more apparent on the posterior view.

A forward position of the shoulders best observed in the lateral view with or without an associated dorsal kyphosis is the other most commonly observed abnormality of posture in postural myoneuralgia. Dorsal kyphosis, either structural or postural, is common, and a forward position of the head in relation to the shoulders is occasionally seen.

Structural scoliosis, hemivertebrae and other bony abnormalities of the thorax or spine are of obvious significance. X-ray examination of the thorax and entire spine should be required of every patient. Environmental and vocational influences on posture are often of great importance and frequently must be altered before relief of symptoms can be achieved.

Neurologic signs. The reflexes are within normal limits. Objective motor weakness of the hands, though denied by some authors, has been found by most careful observers.[4, 9, 10, 14, 18, 21, 25, 27] The authors of the largest series of cases studied[14, 25] reported it was common. It is of interest that Ormerod's paper[4] (1883) was entitled "A Peculiar Numbness and Paresis of the Hands." Ekbom[18] tested his patients objectively for hand strength with a dynamometer and found muscular weakness in 12 of 16 patients tested.

Muscle atrophy is rare.[27] It was reported as occurring in 1 to 2 per cent of cases by Godlewski.[13]

Sensory changes in the arms or hands may be demonstrable on very careful examination.[9, 12, 13, 22, 25, 27, 28] They are uncommon. Objective changes were found to be present in only 2 of 20 cases by Brown and Moersch.[19] Objective sensory changes of minor degree were noted in 20 of 50 cases by deSeze and Godlewski.[14] It is obvious that minor sensory changes would be likely to occur in a syndrome noted by the presence of prominent paresthesias. They should not be excluded from the list of objective findings associated with the syndrome under discussion.

Test for neurovascular bundle compression. Tests to determine compression of the neurovascular bundle have for the most part been associated with syndromes which themselves are of doubtful significance and often confused with postural disorders. None of these tests has proven to be of special and reliable diagnostic significance. All of them are difficult to reproduce accurately from one patient to another and from one examination to another.

An easily standardized maneuver incorporating an auscultatory element is helpful in the diagnosis of postural myoneuralgia. The maneuver has been described previously and consists of auscultation over the subclavian artery and simultaneous palpation of the radial pulse as the arm is gradually brought to a position of 90 degree abduction of the humerus from the thorax with the elbow flexed 90 degrees (figure 1). When a bruit is elicited by this maneuver, it is best heard below the midpoint of the clavicle. Though by itself a bruit is by no means pathognomonic, it is very often an important element in establishing a diagnosis of postural myoneuralgia by indicating the ease with which the neurovascular bundle is compressed in a particular patient. Patients in whom the neurovascular bundle is easily compressed are particularly subject to symptoms referable to the upper extremities caused by postural abnormalities. A unilateral bruit or a bruit more easily elicited on one side than the other is more significant than the mere presence or absence of a bruit. One can estimate its significance by noting the angle of abduction of the humerus at which a bruit is elicited. In occasional patients, it will be found that a bruit is present with the patient at rest in a sitting position. Bruit, of course, is a more sensitive index of neurovascular bundle compression than palpation of the radial pulse. It is of considerable importance, however, that such palpation be carried out simultaneously as a check on the degree of neurovascular bundle compression present. Occasionally if the subclavian artery is easily compressed by the maneuver, a bruit will be missed by the examiner unless simultaneous palpation of the radial pulse calls attention to the fact that the subclavian artery has been occluded in a very early stage of the maneuver.

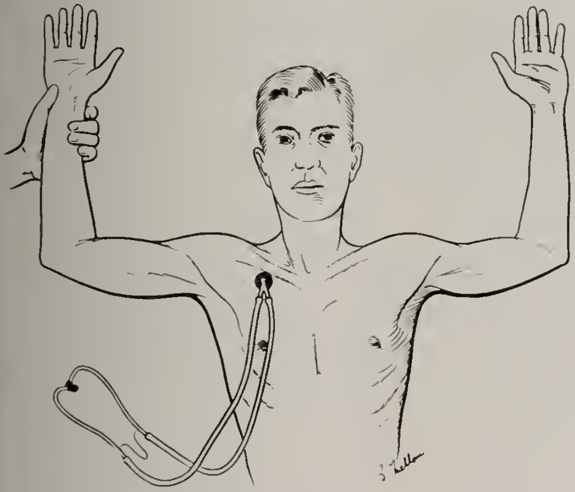

FIG. 1. Test for neurovascular bundle compression.

Myalgia. The literature contains very little mention of myalgia as a component of the syndromes listed in table 1, but it has not gone unnoticed. The tendency has been, however, to describe separate muscular syndromes and consider the myalgias separately rather than as part of a postural disorder and closely related to pain and paresthesias in the upper extremities. DeSeze and Godlewski[14] noted that many of their patients with acroparesthesia syndromes also had cervicobrachialgia alternately. Radicular brachialgias, they pointed out, often increase or are worse during sleep, and two-thirds of these patients have paresthesias. Patients may have cervicobrachialgia and some years later develop a so-called acroparesthesia syndrome. In this area there is a large overlap between the fields of neurology, orthopedics, and physical medicine, and the subject of myalgias in general is badly in need of integration. It is sufficient for this discussion to indicate that the numerous myalgic syndromes are closely related to the acroparesthesia syndromes discussed here, and that both of these categories of disorders are closely related to the mechanics of posture.

Myalgia is a very constant feature of the syndrome under discussion, but will be noted only if specifically searched for. Maximum muscle tenderness is found in the muscles subjected to maximum postural stress, and varies from patient to patient. The upper and middle thirds of the trapezius and the insertion of the levator scapulae at the superior angle of the scapula are the most common areas of muscle tenderness. Unless each muscle is checked individually on each side of the neck and thorax, muscle tenderness due to postural strain will be missed.

ASSOCIATED CONDITIONS

Pregnancy. Paresthesias in the upper extremities are so commonly seen in pregnant women that this relationship has been mistakenly regarded as a specific one with various terms coined to designate it. Terms such as "pregnancy acroparesthesia" suggest that it is something apart from the ordinary paresthesia syndromes. Walshe[9] and Behrman[22] emphasized the nonspecificity of pregnancy. "Neuritis of pregnancy" is a misnomer as well as a misinterpretation, as was pointed out forcefully by Walshe in 1952. Weddell[30] suggested that the symptoms in these cases are determined by anatomic changes associated with pregnancy. It is estimated to occur in 5 per cent of gravid women.[20] The postural alterations in pregnancy need not be dwelt on at length inasmuch as they are obviously not specific. In regard to the fact noted by many authors that symptoms often appear at the termination of pregnancy rather than during it, it is often overlooked that the care of the newborn may be the cause of symptoms rather than the pregnancy.[9, 20]

Lumbar disc disease. The association of lumbar disc disease with posturally induced symptoms in the upper extremities is common. The voluntary and involuntary postural shifts in response to lumbar symptoms induce new symptoms in the upper extremities.

Summary of Twenty-six Cases

A series of 26 cases have been seen which unequivocally fall in the category of the syndromes listed in table 1. These cases are a homogenous group in respect to the history, physical findings, and therapy. They conform without exception to the pattern of the clinical syndrome outlined in detail in this paper. In all of the cases paresthesias of the arms and hands was the principal complaint. Cases in which pain was a prominent complaint were excluded intentionally. Such cases are very often postural in origin, but it is not my purpose to consider other than the group of disorders in which paresthesias are the primary complaint, inasmuch as integration of these syndromes is regarded as a fundamental step in the delineation of clinical disorders induced by postural alterations.

The age and sex distribution of these patients was not remarkable. Approximately 25 per cent were males.

Because of selection, paresthesias of the arms was the principal complaint. The incidence of other signs and symptoms in this series is shown in table 3. Objective vascular changes occurred in 2 cases, intermittent cyanosis in 1, and swelling of the hands in the other. Objective weakness of the hands was found in 6 cases. The high incidence of major postural abnormalities is very significant, and I believe that the incidence of scoliosis of the spine will prove to be much higher than indicated in this small series when a larger group of patients have been examined. It is obvious that myalgia is a more significant clinical sign than a bruit over the subclavian artery.

TABLE 3

Signs and Symptoms in 26 Cases

- Symptoms:
  - Paresthesias
    - Bilateral—20
    - Unilateral—6
  - Vasomotor
    - Cyanosis—1
    - Swelling—1
  - Weakness—7 (subjective)
- Signs:
  - Abnormalities of posture
    - Shoulder tilt—20
    - Scoliosis—11
    - Kyphosis—4
    - Forward shoulders—3
  - Bruit
    - Bilateral—7
    - Unilateral—8
  - Myalgia—22
  - Weakness—6 (objective)
  - Sensory deficit—1
  - Associated conditions
    - Pregnancy—1
    - Postpartum (3 mos.)—3
    - Lumbar disc—5

The latter is a useful sign but only if carefully evaluated in the light of associated symptoms and signs. In 4 patients, symptoms began either during pregnancy or within 3 months postpartum. This association should be considered an integral part of the syndrome. Lumbar disc disease is also simply an associated postural influence which may precipitate symptoms.

Of the 26 cases in this series, 16 were adequately treated and followed to determine the efficacy of therapy. Treatment consisted of heat and massage, followed by an exercise program to improve posture and to strengthen the muscles that elevate and retract the shoulders. Therapy 3 times weekly for a period of 3 weeks in an appropriately supervised department of physical medicine is sufficient for relief of symptoms. Of the 16 patients, 2 were improved and 14 relieved of all symptoms. Long-standing symptoms or structural skeletal anomalies are no bar to successful treatment.

SUMMARY

A group of ill-defined syndromes have been recognized as primarily postural disorders and integrated into a concept of postural myoneuralgia. The clinical aspects of this disorder are described.

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BIBLIOGRAPHY

1. SCHULTZE, F.: Deutsche Ztschr. f. Nervenh., Leipz., 1892–93, **3**, 300.
2. NOTHNAGEL, H.: Deutsches Arch. f. klin. Med., Leipz., 1866–67, **2**, 173.
3. PUTNAM, J. J.: Arch. Med., N. Y., 1880, **4**, 147.
4. ORMEROD, J. A.: St. Barth. Hosp. Rep., Lond., 1883, **19**, 17.
5. SINKLER, W.: Phila. M. Times, 1883–4, **14**, 840.
6. DANA, C. L.: Med. Rec., N. Y., 1885, **28**, 57.
7. CASSIRER, R.: Die vasomotorisch-trophischen Neurosen; eine Monographie, 2. Aufl., 2nd ed. Berlin: S. Karger, 1912.
8. CLARK, L. P.: Am. J. Obst., 1912, **66**, 756.
9. WALSHE, F. M. R.: Brit. M. J., 1945, **2**, 596.
10. BLAKE PRITCHARD, E. A., in Horder, editor: British Encyclopaedia of Medical Practice, 2nd ed., 1950, **1**, 137.
11. JOHNSON, D. A.: J.A.M.A., 1955, **159**, 1507.
12. SIGWALD, J., AND GROSSIORD, A.: Rev. neurol., 1947, **79**, 759.
13. GODLEWSKI, S.: Progr. méd., Paris, 1951, **79**, 291.
14. DESEZE, S., AND GODLEWSKI, S.: Semaine hôp. Paris, 1952, **28**, 2941.
15. JELLIFFE, S. E.: J. Nerv. & Ment. Dis., 1934, **79**, 631.
16. FROMENT, R., AND GARDE, A.: Bull. et mém. Soc. méd. hôp. Paris, 1947, **63**, 785.
17. BONDUELLE, M.: Semaine hôp. Paris, 1950, **26**, 2341.
18. EKBOM, K. A.: Acta psychiat. et neurol., 1939, **14**, 311.
19. BROWN, R. W., AND MOERSCH, F. P.: Dis. Nerv. System, 1940, **1**, 108.
20. BENSON, R. C., AND INMAN, V. T.: West. J. Surg., 1956, **64**, 115.
21. YOUNG, J. H.: M. J. Australia, 1950, **1**, 695.
22. BEHRMAN, S.: Proc. Roy. Soc. Med., 1945, **38**, 600.
23. HASSIN, G. B.: J. Neuropath & Clin. Neurol., 1951, **1**, 320.
24. FORD, F. R.: Bull. Johns Hopkins Hosp., 1956, **98**, 464.
25. WEISSENBACH, R. J., AND FAULONG, L.: Rev. du rhum, 1946, **13**, 1.
26. FROMENT, R., AND WEGELIN: Presse méd., 1946, **54**, 282.
27. FRANCON, F.: Progr. méd., Paris, 1951, **79**, 275.
28. DEJERINE, J. J.: Semiologie des affections du systeme nerveux. Paris: Masson, 1914, p. 726.
29. WARTENBERG, R.: Ztschr. f. d. ges. Neurol. u. Psychiat., 1936, **154**, 695.
30. WEDDELL, G.: Proc. Roy. Soc. Med., 1945, **38**, 601.

CONGENITAL ESOPHAGEAL ATRESIA WITH AN ASSOCIATED TRACHEO-ESOPHAGEAL FISTULA

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CONGENITAL esophageal atresia with an associated tracheo-esophageal fistula is a surgical emergency. If the condition is not altered immediately by some mechanical means it will prove fatal. Death is the result of dehydration, aspiration pneumonia, atelectasis, and malnutrition. Prior to 1939 no infant with this condition survived more than 6 weeks. The longest survival was in an infant, maintained on intraperitoneal glucose, who was reported by Trump[1] in 1933 to have lived 37 days. Humphreys and co-authors[2] reported a 100 per cent fatality in 20 infants on whom the diagnosis was made but not operated upon. The longest survival was for 18 days, and the average age at death was 7 days.

Early operative attempts at correction of this abnormality failed. Ladd[3] and Leven[4] in 1939 independently obtained survival in infants by closing the tracheo-esophageal fistula and performing a gastrostomy and a cervical esophagostomy. The infants had a salivary fistula, feeding gastrostomy, and a future of multiple surgical procedures to establish esophageal continuity. The outlook in infants undergoing these procedures was poor, and only a few were successful.

Haight[5] on March 15, 1941 was the first to successfully establish esophageal continuity in a 1-stage operative procedure. An extrapleural approach was used, the fistula was ligated, and a primary anastomosis of the proximal and distal segments by an end-to-end anastomosis was accomplished. Shaw[6] in 1939 was the first to report an operation of this type. The technic was employed by Samson[7] about the same time, and by Lanman,[8] who in 1940 described 4 patients operated upon in 1936 and 1937. Haight[5] gives Lanman the credit for being the first to apply the principle of extrapleural closure of the fistula combined with primary anastomosis of the 2 segments of the esophagus. Haight's outstanding contribution of successfully establishing normal continuity of the esophagus at the time of the primary operation is universally accepted today as the treatment of choice. Since 1941 the mortality has been reduced to approximately 15 per cent or less in many institutions.[2] Potts[9] reported a mortality of 11 per cent for the year 1955. Other contributing factors in this reduction in mortality have been advances in the field of anesthesiology and fluid replacement therapy. In addition, a better understanding of this condition by the general practitioner and pediatrician has led to early diagnosis and institution of definitive therapy.

Many combinations of congenital esophageal atresia with and without an associated tracheo-esophageal fistula have been reported (figure 1). However, in over 90 per cent of these cases[1, 10, 11] the malformation is such that the upper esophagus ends in a blind pouch with no communication with the trachea, and the lower esophagus originates in a fistula from the membranous portion of the trachea or main-stem bronchi. The 5 cases reported here are of this type.

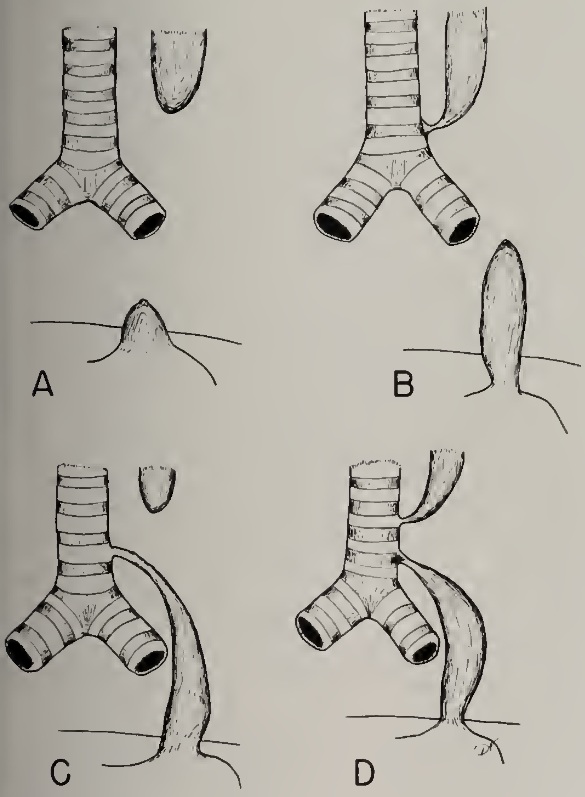

FIG. 1. Types of congenital esophageal atresia: (A) No esophageal communication with bronchus or trachea, (B) upper esophageal segment communicates with trachea, (C) lower esophageal segment communicates with trachea or bronchus, (D) both esophageal segments communicate with trachea.

The incidence of this abnormality is still uncertain. During the years 1948–1956 there were 27,820 births at the George Washington University Hospital. There were 3 recognized cases of congenital esophageal atresia with an associated tracheo-esophageal fistula, a rate of 1 in 9,271 births. There was 1 in approximately each 3,000 births at the Sloan Hospital in New York City.[2] The frequency, however, may be greater, since the anomaly can often be overlooked and death ascribed to neonatal asphyxia, atelectasis or pneumonia.

Approximately 25 per cent[2, 11] of these infants are premature or weigh less than 5 pounds. There were 52 premature infants in 233 cases that Gross[10] treated and 27 in 136 cases that Humphreys[2] treated. In a considerable number of infants there are other types of abnormalities. The most frequent of these are congenital heart disease, imperforate anus, and intestinal atresias and stenosis.[10] In Humphreys' series[2] approximately one-third of the survivors and two-thirds of those who died showed other abnormalities. Gross[10] performed 21 major operations for other abnormalities following treatment of the esophageal obstruction.

An esophageal obstruction should be suspected in a newborn infant having an excessive amount of saliva and who immediately regurgitates all liquids. Aspiration of saliva and formula will cause cyanosis. This will improve once the airway is cleared. Spillage of mucus may continue and atelectasis and pneumonia will develop. Regurgitation of acid secretions from the stomach via the esophagus through the fistula produces a violent chemical irritation, and with secondary bacterial invasion causes an overwhelming chemical and bacterial pneumonia. There is marked dehydration and starvation unless parenteral fluids have been given.

The diagnosis of an esophageal atresia with an associated tracheo-esophageal fistula can often be made on the history alone. Confirmation is obtained by physical and roentgenographic means. Additional information is gained when a small urethral catheter is passed into the esophagus and an obstruction is encountered. On fluoroscopic examination the catheter bends back upon itself and the tip is found in the pharynx. Instillation of air or contrast media, such as Lipiodol or Urokon, through the catheter will demarcate the blind pouch in the esophagus (figure 2). No more than .5 c.c. of any contrast media should be used. This should be aspirated immediately. Lipoid pneumonia[12] has been reported following the use of Lipiodol for diagnostic purposes when the material regurgitated into the trachea. Barium is mentioned only to be condemned. Barium, when aspirated into the tracheobronchial tree, causes atelectasis and pneumonia and cannot be removed easily.

Roentgenograms of the chest and abdomen will substantiate the presence of atelectasis, pneumonia, and gas in the gastrointestinal tract. Atelectasis of the right upper lobe is present in at least half of the cases. Gas in the gastrointestinal tract is indicative of a tracheo-esophageal fistula, but the absence of gas does not preclude the diagnosis.[13]

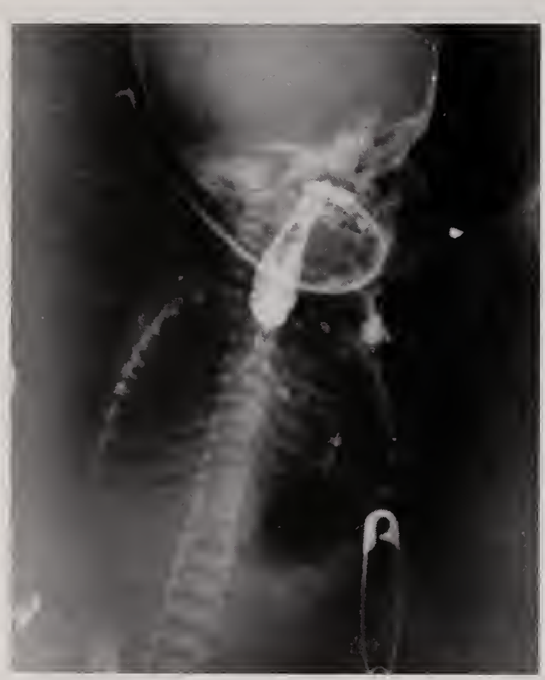

FIG. 2. Esophageal atresia with Urokon instilled into upper segments; stomach distended with air; no air seen in intestines. A tracheo-esophageal fistula and duodenal atresia were present.

SURGICAL TECHNIC

The preoperative preparation and care of these patients is of the utmost importance. Any infant who has an excessive amount of saliva or who coughs or shows other signs of respiratory difficulty upon feeding should be given nothing by mouth, and frequent oropharyngeal suctioning should be instituted. Once the diagnosis has been established, the infant is placed in an incubator with the head of the platform slightly elevated to minimize regurgitation of gastric secretions.[10, 11] The pharynx is suctioned every half hour with a small, soft rubber catheter.

There must be controlled temperature and moist oxygen in the incubator. Dehydration is corrected by clysis and intravenous infusions through a small polyethylene tube inserted into one of the anterior malleolar veins of the ankle. Fluids, in general, should not exceed 75 c.c. per Kg. per day, and blood to the amount of 15 c.c. per pound of body weight should be made available for the surgical procedures. Broad spectrum antibiotics are given. Definitive therapy should not be delayed for more than a few hours, although enough time should be allowed for correction of the dehydration and improvement in the pulmonary infection. All infants, regardless of their condition, should have the benefit of operation, since there is no chance of survival without some form of surgical intervention.[9]

In the 5 cases reported here an oxygen-ether mixture with a tight-fitting mask was the anesthesia of choice. Gross[10] prefers administering cyclopropane-oxygen with the same technic. Others[2, 9] prefer intratracheal anesthesia, especially in larger infants, utilizing ether or cyclopropane.

The advantages of intratracheal anesthesia are control of respiration with maintenance of lung expansion on the operative side, prevention of oral secretions from entering the tracheobronchial tree, and aspiration of the gastric secretions which enter the tracheobronchial tree before the fistula is closed. Anesthesiologists advocating the tight mask believe that postoperative laryngeal edema and overdistention of the pulmonary alveoli causing pulmonary edema are avoided. Moreover, tracheal aspiration can be accomplished easily by direct laryngoscopic intubation with a small catheter. Sodium pentothal with ventilation maintained by an intratracheal tube has also been recommended.[11]

The right-sided approach has proved to be superior to that on the left. It is believed that the left-sided approach is much more shocking and in Humphreys' group of cases[2] with this approach the mortality was higher and leakage was more frequent, particularly if an anastomosis was done lateral to the aortic arch. A retropleural approach may be employed, but most surgeons consider the transpleural approach more facile.[9, 10, 11] The retropleural approach is much more time-consuming and more traumatic, and the dissection of the lower esophageal segment is more difficult. The pleura is inadvertently opened in approximately half of the cases when the extrapleural approach is used; this results in a pneumothorax. Repair of the thin parietal pleura when torn is usually difficult, and the tear enlarges when attempts are made to close it.

A right parascapular or posterior lateral incision is made; the fourth or fifth rib is resected subperiosteally, or the pleural cavity may be entered through the fourth interspace. The mediastinal pleura is divided over the esophagus from the cervical inlet down to the diaphragm. The azygos vein is divided. The distal esophageal segment is identified and freed for at least 2 to 3 cm. from its attachment to the membranous portion of the trachea or mainstem bronchus. The distal esophagus may be mobilized if necessary to the hiatus of the diaphragm, but the blood supply and the vagus nerves must be carefully preserved. The fistulous communication with the trachea is divided. The communication with the trachea is closed, interrupted sutures of fine silk being used. The proximal segment may be identified by passing a transoral catheter into the blind pouch. The esophagus is mobilized far into the neck by blunt and sharp dissection. A small opening is made into the apex of the proximal pouch and a 1-layer anastomosis of the proximal and distal segments is made. The sutures are placed through the entire thickness of the esophagus. The suture line may be further strengthened by placing a few sutures in the muscularis, and in this way the original suture line is inverted. The mediastinal pleura is approximated, a small opening being left superiorly and inferiorly for drainage. A small catheter for water-seal drainage is inserted through the seventh intercostal space in the posterior axillary line.

Postoperatively the infant is placed in an incubator with a moist oxygen-enriched atmosphere. There must be constant nursing care. Frequent pharyngeal aspirations are continued. Parenteral fluids are given through the indwelling polyethylene catheter. On the seventh to the tenth postoperative day small hourly feedings of glucose are begun. Once the feedings are taken readily, the formula is started and increased daily until a full formula is tolerated.

ILLUSTRATIVE CASES

Case 1. B.G.S. was a 4-pound, 1-ounce female infant born on March 14, 1951 at the George Washington University Hospital. At birth she appeared to be normal. She soon developed an excessive amount of saliva requiring frequent aspirations. Feedings of water and glucose caused regurgitation, coughing, gagging, and, on the second hospital day, cyanosis. Respiration became rapid and shallow, and there were wheezes and ronchi with moist rales heard bilaterally. Despite this information a diagnosis was not established until the fourth day of life, when attempts to pass a catheter into the stomach met an obstruction in the upper esophagus. Roentgenograms with Lipiodol instilled into the esophagus were made. A blind upper esophageal segment extending to a level opposite the third thoracic vertebra was seen. There was gas in the stomach and small bowel. The right upper lobe was completely atelectatic. A diagnosis of a congenital esophageal atresia with an associated tracheo-esophageal fistula was made.

Laboratory findings were: hemoglobin, 13.9 Gm., red blood cell count 4.2 million, white blood cell count 12,200, with 38 per cent lymphocytes and 56 per cent polymorphonuclear leukocytes.

On March 17, 1951, 98 hours after birth, ether and oxygen inhalation anesthesia being used, a right posterolateral extrapleural thoracotomy was performed. The esophageal segments were mobilized. The lower esophageal segment communicated with the membranous portion of the trachea adjacent to the carina. The fistula was divided at its attachment to the trachea, and the tracheal defect was closed, interrupted sutures of fine silk being used. A primary anastomosis of the proximal and distal segments of the esophagus was accomplished. A 2-layer anastomosis was made with fine silk sutures. A tissue drain was placed in the mediastinum and brought out through the wound. The chest wall was closed and the patient returned to the ward in fair condition.

Postoperatively the patient did well for the next 24 hours with the exception of an occasional episode of dyspnea and cyanosis. However, the following day the patient became cyanotic and died.

At autopsy extensive bronchopneumonia and atelectasis of both lungs were found. An interventricular septal defect, coarctation of the aorta, dual right coronary ostia, and stenosis of the left ureter with a hydronephrosis were also found. The esophageal anastomosis was intact and showed no evidence of an obstruction.

Case 2. C.H. was an 8-pound, 5-ounce male infant born on March 28, 1951 at the George Washington University Hospital. The infant appeared to be normal. However, soon after birth an excessive amount of saliva was noted and the infant was not fed until the second hospital day. Attempted feeding at this time produced choking, gagging, and cyanosis. On the third hospital day attempts were made to pass a catheter into the stomach. This met with an obstruction in the upper esophagus. Roentgenograms with Lipiodol instilled into the esophagus were made. A blind upper esophageal segment extending to a level opposite the third thoracic vertebra was found. Gas was present throughout the gastrointestinal tract. A diagnosis of a congenital esophageal atresia with an associated tracheo-esophageal fistula was made.

Laboratory findings were: hemoglobin 17.3 Gm. and volume of packed cells 57; white blood cell count 11,250, with 54 per cent lymphocytes and 45 per cent polymorphonuclear leukocytes.

On April 1, 1951, 76 hours after birth, ether and oxygen inhalation anesthesia being used, a right posterolateral extrapleural thoracotomy was performed. The fifth rib was resected subperiosteally. During the extrapleural dissection small tears were inadvertently made in the parietal pleura which were repaired with interrupted sutures of fine silk. The esophageal segments were mobilized. The lower esophageal segment communicated with the membranous portion of the right main-stem bronchus just below the carina. The fistula was divided at its attachment to the bronchus, and the bronchial defect was closed with interrupted sutures of fine silk. A primary anastomosis of the proximal and distal segments of the esophagus was accomplished. A 2-layer anastomosis was made using fine silk sutures. A tissue drain was placed into the mediastinum and brought out through the wound. The chest wall was closed. The infant returned to the ward in good condition.

Postoperatively the infant was fed intravenously. Air leaked into the extrapleural space during changing of a dressing, a catheter with underwater seal was inserted in the extrapleural space and the lung was immediately reëxpanded. On April 2, 1951 a Stamm-type gastrostomy was made and feedings were started through the gastrostomy tube. The infant was fed through the gastrostomy tube for approximately 10 days. During this time he appeared to be swallowing saliva. On the eleventh postoperative day dextrose was started by mouth but could not be tolerated because of choking and cyanosis. An esophageal stricture was confirmed by introducing Lipiodol through a catheter under fluoroscopy. The infant was continued on gastrostomy feedings, and on May 16, 1951, under satisfactory endotracheal ether anesthesia, the infant was esophagoscoped. A small urethral catheter was passed through a 2 mm. stricture of the esophagus and withdrawn through the gastrostomy opening. The catheter was replaced by heavy braided silk for dilation. Routine dilations were then carried out, and the infant was discharged on the seventy-third hospital day weighing 9 pounds, 14 ounces and taking 30 ounces of formula daily by mouth. The esophagus had been dilated to a no. 20 French with the Tucker retrograde dilator.

Case 3. B.G.B. was a 5-pound, 3-ounce female infant born on September 5, 1951 in another hospital, and was admitted to the George Washington University Hospital on September 8, 1951 because of excessive saliva and inability to retain any type of food. No gross abnormalities were noted. An attempt was made to pass a catheter into the esophagus, but this met a high obstruction. Roentgenograms with Lipiodol instilled into the esophagus were made. A blind upper esophageal segment extending to a level opposite the first thoracic vertebra was seen. There was a moderate amount of gas in the stomach and small bowel. Diagnosis of a congenital esophageal atresia with an associated tracheo-esophageal fistula was made.

Laboratory findings were: hemoglobin 15.2 Gm., red blood cell count 4.7 million, white blood cell count 14,800, with 34 per cent lymphocytes and 60 per cent polymorphonuclear leukocytes.

On September 8, 1951, 64 hours after birth and 4 hours after admission to this hospital, ether and oxygen inhalation anesthesia being used, a right extrapleural thoracotomy was performed. The third rib was resected subperiosteally. The esophageal segments were mobilized. The lower esophageal segment communicated with the membranous portion of the trachea. The fistula was divided at its attachment to the trachea and the tracheal defect was closed using interrupted fine silk sutures. A primary anastomosis of the proximal and distal segments of the esophagus was accomplished. A tissue drain was placed in the mediastinum and brought out through the wound. The chest wall was closed. The infant returned to the ward in good condition.

Postoperatively the infant did well. Oral feedings were started on the third postoperative day. There was no evidence of esophageal stricture on a barium swallow done on the twenty-eighth postoperative day. The infant was discharged on the thirty-first postoperative day.

Case 4. B.B.S. was a 4-pound, 12-ounce male infant born on February 20, 1953 in another hospital and admitted to the George Washington University Hospital on February 21, 1953. Diagnosis of congenital esophageal atresia had been suspected. Roentgenograms with instillation of Lipiodol into the esophagus were done on admission. A blind upper esophageal segment extending to a level opposite the second thoracic vertebra was seen. The stomach was filled with air, but no gas was seen beyond the pylorus (figure 2). Diagnosis of congenital esophageal atresia with an associated tracheo-esophageal fistula was made. Duodenal atresia was suspected but could not be confirmed. The hemoglobin was 17.3 Gm.

On February 21, 1953, 40 hours after birth, ether and oxygen inhalation anesthesia being used, a right posterolateral extrapleural thoracotomy was performed. The fourth rib was resected subperiosteally. The esophageal segments were mobilized. The lower esophageal segment communicated with the membranous portion of the trachea adjacent to the carina. The fistula was divided at its attachment to the trachea and the tracheal defect closed with interrupted sutures of fine silk. In spite of all efforts the proximal and distal esophageal segments could not be united. The distal segment was ligated and sutured to the mediastinal pleura. The chest wall was closed. An esophagostomy and a Stamm-type gastrostomy were done. The infant returned to the ward in fair condition.

Postoperatively the infant was maintained on clysis, but his condition deteriorated. On February 25, 1953, nitrous oxide, ether and oxygen being used as a general anesthetic, a laparotomy was performed. At exploration the diagnosis of a duodenal atresia was confirmed. The duodenum ended in a blind pouch at its first portion. The jejunum and the remainder of the intestinal tract appeared to be normal. A jejunostomy was done. The infant returned to the ward in poor condition. The infant's condition continued to deteriorate, and he expired on February 28, 1953.

At autopsy extensive bronchopneumonia of the right lung was found. The duodenum ended in a blind pouch at its first portion. The gastrointestinal tract was restored at the first portion of the jejunum. A Meckel's diverticulum was present. The gallbladder was atrophic, and the cystic duct was extremely narrow. The hepatic ducts and the common bile ducts were moderately distended. The common bile ducts ended in a blind pouch in the region of the ampulla of Vater which was also absent. There was an abscess among the small intestines, spleen, and abdominal wall in the left upper quadrant.

Case 5. B.B.M. was a 6-pound, 4-ounce male infant born on July 15, 1953. No gross abnormalities were noted upon physical examination. An excessive amount of saliva was noted 12 hours after birth, requiring frequent oral pharyngeal aspirations. When feedings were started all food was regurgitated. An attempt to pass a catheter into the stomach met with an obstruction in the upper esophagus. Roentgenograms with Lipiodol instilled into the esophagus were made. A blind upper esophageal segment extending to a level opposite the second thoracic vertebra was seen. There was gas in the stomach and small bowel. Diagnosis of congenital esophageal atresia with associated tracheo-esophageal fistula was made.

On July 16, 1953, 25 hours after birth, ether and oxygen inhalation anesthesia being used, a right posterolateral transpleural thoracotomy was performed. The fourth rib was resected subperiosteally. The esophageal segments were mobilized. The lower esophageal segment communicated with the membranous portion of the trachea adjacent to the carina. The fistula was divided at its attachment to the trachea, and the tracheal defect was closed with interrupted sutures of fine silk. A primary anastomosis of the proximal and distal segments of the esophagus was accomplished. A 1-layer anastomosis was made. The chest was closed with water-seal drainage, and the patient returned to the ward in good condition.

Postoperatively the infant was maintained on clysis for approximately 4 days. Feedings were then started by mouth. On the ninth postoperative day the infant had an attack of acute respiratory distress and became cyanotic. This was relieved by pharyngeal aspiration. The infant was dilated on several occasions and was discharged on the fifty-ninth postoperative day in good condition. Upon discharge he was taking food well and the weight was 7 pounds and 1½ ounces.

SUMMARY

Congenital esophageal atresia with an associated tracheo-esophageal fistula is a relatively common malformation of the newborn. Prior to 1939 no infant survived with this abnormality. With definitive surgery the mortality rate has dropped to approximately 15 per cent. Fluid replacement therapy, advances in the field of

anesthesiology, and earlier diagnosis have also been contributing factors. The high incidence of prematurity in these infants and the frequent accompanying congenital abnormalities greatly contribute to the overall mortality.

The diagnosis should be suspected in any newborn infant who is having difficulty swallowing or who salivates excessively. Confirmation of the diagnosis may be obtained by radiologic examination. Surgical intervention should not be delayed more than the few hours utilized to bring the infant into the best possible shape for thoracotomy.

The operative procedure recommended consists in a right transpleural approach to the mediastinum. The proximal and distal ends of the esophagus and the accompanying fistulous tract are mobilized. The fistulous tract is divided, the tracheal defect is closed, and a primary anastomosis is accomplished between the 2 esophageal segments. The details of preoperative and postoperative care have been discussed.

Five cases are reported with 3 survivals. The 2 infants that did not survive had multiple congenital abnormalities.

BIBLIOGRAPHY

1. Trump, F. A.: J. Pediat., 1933, **2**, 212.
2. Humphreys, G. H., Hogg, B. M., and Ferrer, J.: J. Thoracic Surg., 1956, **32**, 332.
3. Ladd, W. E.: New England J. Med., 1944, **230**, 625.
4. Leven, N. L.: J. Thoracic Surg., 1941, **10**, 648.
5. Haight, C., and Towsley, H. A.: Surg. Gynec. & Obst., 1943, **76**, 672.
6. Shaw, R.: J. Thoracic Surg., 1939, **9**, 213.
7. Samson, P. C., cited by Shaw.[6]
8. Lanman, T. H.: A.M.A. Arch. Surg., 1940, **41**, 1060.
9. Potts, W. J., in discussion of Humphreys, Hogg, and Ferrer.[2]
10. Gross, R. E.: The Surgery of Infancy and Childhood: Its Principles and Techniques. Philadelphia: Saunders, 1953.
11. Berg, R., Jr.: J. Thoracic Surg., 1956, **31**, 550.
12. Abbott, O., in discussion of Humphreys, Hogg, and Ferrer.[2]
13. Haight, C.: Ann. Surg., 1944, **120**, 623.

ANAPHYLACTIC REACTION TO DEXTRAN

Report of a Case

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SENSITIVITY reactions to dextran of American manufacture are very rare, and very few cases have been reported. Tarrow[1] reported 1 severe reaction; Erasmus and Birch[2] reported a severe allergic reaction with angioneurotic edema and circulatory collapse which responded to supportive therapy.

The case presented in this report can be classified as a dextran reaction with peripheral vascular collapse, manifestations of which required active supportive therapy for a period of 44 hours before showing signs of improvement.

REPORT OF CASE

A 70-year-old white man was admitted for reduction and fixation of a fracture to the neck of the left femur. His history showed a moderate alcohol intake and 2 previous hospital admissions for pneumonia, the second in 1954, with the comment, "following a penicillin injection he developed a rash."

There was a slight tremor of the hands at rest, hepatomegaly, and an ulcerated mass (1.5 cm. in diameter) on the left side of the base of the tongue of 1 month's duration. The heart rate was 90 per minute and the blood pressure 150/80. The hematocrit was 43 per cent, the white blood cells numbered 7,000, the blood urea nitrogen was 12 mg., a fasting blood sugar was 98 mg., and there was retention of 32.5 mg. of bromsulfalein after 45 minutes. A urinalysis was normal. Biopsy of an ulcer of the tongue revealed a carcinomatous lesion with no apparent involvement of the cervical lymph nodes.

Reduction and fixation of the head of the femur was performed under general anesthesia. The patient received compatible blood during the procedure and had an uneventful recovery. A week following this procedure, in preparation for a hemiglossectomy and dissection of lymph nodes, blood volume studies were performed.

A saline suspension of washed O Rh negative red blood cells tagged with Cr^{51} (15 microcuries) was injected, and 25 minutes later a blood specimen was removed for counting. Dextran in 5 per cent glucose was begun by infusion, and within 1 minute after administration of 10 c.c. of this solution the patient complained of tingling and burning in his fingers and toes, and his face became flushed. The patient complained that he was "going to die." The dextran infusion was stopped. The skin was cold, clammy, and ashen in color. The patient had the feeling of tightness in the chest, shortness of breath, and loss of sphincter control. The radial pulse was thready and the blood pressure unobtainable.

The foot of the bed was raised, nasal oxygen administered, and a saline infusion started. Benadryl (100 mg.), adrenalin (1 mg.), Pyrabenzamine (50 mg.), aminophylline (250 mg.), Wyamine sulfate (30 mg.), hydrocortisone (100 mg.), and ascorbic acid (1 Gm.) were given over a period of 20 minutes with no apparent response. The general condition continued to deteriorate, and the blood pressure could not be obtained. The patient was gasping and became more and more restless and cyanotic.

Norepinephrine (8 mg. per 1,000 c.c. in 5 per cent dextrose in water) was started, and after a few minutes the blood pressure rose to 110/70 and the radial pulse became perceptible. This was continued for 44 hours at the rate of 20 mg. of norepinephrine in 24 hours. Supplemental doses of hydrocortisone were given, and the dose of norepinephrine infusion was slowly tapered off after 48 hours and discontinued on the fifth day.

For the first 12 hours, the patient was anuric and the following 24 hours oliguric; on the fifth day the urine output reached 1,500 c.c. per 24-hour period.

Serial electrocardiograms showed no changes. Electrolyte balance was maintained within normal limits. The blood urea nitrogen rose to 36 mg. on the second day and returned to normal on the fifth day.

Antibody determinations to dextran were performed 3 weeks later on the patient's serum. The results showed a definite amount of antibody in the serum.*

After recovering from this episode the patient successfully underwent a hemiglossectomy and dissection of lymph nodes under hypothermia, with blood replacement during the procedure. No postoperative complications were noted, and the patient had an uneventful recovery.

A sample of blood taken during the anaphylactic reaction showed no incompatibility with a sample of O Rh negative cells tagged with Cr^{51} that the patient received

Pyrogenic reaction tests were conducted on a sample of the bottle of dextran the patient received, as well as washings taken from the infusion tubing, needle and syringe. The results were negative.

Dextran has an inherent ability to produce antigen-antibody reaction.[3] This may be a nonspecific reaction. In our opinion, this report presents a case of severe anaphylactic reaction of the peripheral vascular type to an American-prepared dextran.

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* Antigenic tests were performed by Dr. Paul Maurer, Department of Pathology, University of Pittsburgh School of Medicine.

BIBLIOGRAPHY

1. Tarrow, A. B., and Pulaski, E. J.: Reactions in man from infusion with dextran. Anesthesiology, 1953, **14**, 359.
2. Erasmus, J. F. P., and Birch, D. A.: Allergic reactions to dextran; case history report. South African M. J., 1952, **26**, 945.
3. Council on Pharmacy and Chemistry, AMA: New and Nonofficial Remedies: Dextran. J.A.M.A., 1954, **154**, 241.

President's Page

MEETINGS HAVE CHANGED, TOO

For more than a hundred years the Medical Society held regular meetings weekly, and this was still the schedule when I started to practice in Washington. Wednesday was the night! Habit was strong, and regular attendants occupied the same seats week after week, or so it seemed to me.

Some of the old-timers have expressed regret that the Medical Society building is no longer the center of medical activity in the District. They miss the fellowship of the Wednesday night meetings and speak nostalgically of the old days.

The New Year is a time when one looks back, tries to recapture the good things from the past, and speculates on why events worked out as they did and what they mean.

World War II changed the pattern of our society. As the conflict gained momentum, increasing numbers of physicians entered the armed forces; those who remained behind were overworked, and attendance at the scientific meetings dropped off. The meetings were reduced to two a month. When the War was over an effort was made to resume the Wednesday night meetings, but conditions had changed. Two a month, then one a month was tried without success. Finally it was recognized that several factors made this unworkable and two large scientific meetings were scheduled each year, the Annual Scientific Assembly and the Midwinter Seminar.

What happened to bring about this change? Is the Medical Society no longer the center of activity? Immediately after the War some 600 physicians, formerly practicing in the District or new to the area, were fully occupied in establishing a practice and had little time for anything else. Increasing numbers of physicians claimed some specialty, and nearly all who had been in the armed forces were in this category. Their limited interests led them to form specialty societies or form new sections within the Medical Society. The local medical schools embarked upon postgraduate medical programs for doctors in private practice. The advent of television has probably had a profound effect on attendance at meetings. Many of us prefer to sit in an easy chair at home and look at our favorite eight o'clock program.

Things are different. The Medical Society has changed to meet the changing times. While the Wednesday night meetings belong to the past, the Society's building is in constant use by sections, specialty societies, and committees. There are some 30 committees with 350 members. Sometimes as many as two or three groups meet in various parts of the Society's building in a single evening. During the past 6 months there have been 158 scheduled meetings; luncheon was served at approximately half of them. Larger meetings, held in the auditorium, are sponsored by sections, smaller medical societies, and voluntary health organizations. The Midwinter Seminar is always scheduled in the auditorium. Closed-circuit television programs have filled the auditorium to overflowing.

Yes, things are different. Medical meetings have changed, but the Society's building still hums with activities in which many members participate.

James W. Watts

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Editorials

DOES THE PSYCHIATRIC PATIENT GET A FAIR DEAL UNDER THE VOLUNTARY HEALTH INSURANCE PLANS?

The increasing numbers of psychiatric patients seeking private treatment in clinics, offices, or psychiatric units of a general hospital are now developing an uneasy feeling that their Blue Cross, Blue Shield, or other voluntary health insurance plans provide much less protection for nervous and mental disorders than they do for strictly medical illnesses. These patients (or their families) are now reading the "fine print" in their policies and what they read is often disturbing. Many of them think that the health plans discriminate unfairly against patients with psychiatric disorders. To what extent are these deductions justified?

To attempt an answer to this question, the AMA Council on Mental Health assigned this topic to a special discussion group at its recent two-day meeting in Chicago. As might well be expected, the degree of coverage for psychiatric disorders is far from uniform. In fact, it fluctu-

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

ates widely from region to region, from time to time, and from zero to full coverage. Of 73 Blue Shield Plans in operation, 40 provide either full or limited coverage for psychiatric illness, 30 exclude all psychiatric disorders, and 3 exclude all medical illnesses. Blue Cross (which now provides hospital coverage for over 51 million people!) shows an equally wide fluctuation. Of 86 Blue Cross Plans studied in regard to psychiatric illnesses, 39 plans provided no coverage, 13 plans recognized psychiatric disorders with no restrictions, 2 plans gave 120 days' hospitalization, 1 gave 30 days, and the remaining 31 varied from 7 to 30 days. Other voluntary health insurance plans vary greatly in their policy on psychiatric disorders.

Coverage depends also on where the psychiatric patient is treated. Most of the hospitalization plans are effective only if the patient is treated on the psychiatric unit of a general hospital. This arbitrary restriction works an undeserved hardship on patients who, by choice or necessity, are treated from the beginning of their illness in a private psychiatric hospital.

It seems fairly certain that, at present, many (but not all) health insurance plans do discriminate against the mentally ill. Psychiatry is still *terra incognita* for most insurance underwriters, and where there is ignorance, there is fear. It is, therefore, the responsibility of psychiatry to make itself as clearly understood as the other branches of medicine. When this is accomplished, psychiatry, already an integral part of medicine, can take its place with equal status in the voluntary health insurance plans. In this way, the patient with a depressive reaction and the patient with a coronary occlusion would get the same hospital or medical benefits.

This is as it should be.

Zigmond M. Lebensohn, M.D.
Chairman, Committee on Mental Health

BED REST IN PULMONARY TUBERCULOSIS

The Subcommittee on Bed Rest in Pulmonary Tuberculosis of the American College of Chest Physicians has reported that there has been some moderate relaxation in the strictness of the application of bed rest in the treatment of pulmonary tuberculosis since the advent of antituberculosis chemotherapy, but it is generally considered as a basic requirement of therapy. This is true in spite of deliberate programs in some areas to deëmphasize the importance of bed rest for the purpose of investigation.

In discussions of the treatment of tuberculosis, the intense interest in methods of use of the various drugs has occupied the attention of the phthisiologist to such a degree that little has been said about the need of rest as a basic part of therapy. To the men in active practice of chest diseases, this need is generally understood and accepted, but to the person who casually reviews the literature, it is easy to gain an erroneous impression regarding the overall program of tuberculosis treatment. Since an increasing amount of tuberculosis is being cared for by those not specially trained in this disease, the lack of information regarding the whole treatment picture can lead to disastrous results. It is the feeling of this committee that a strong statement should be made reaffirming the importance of bed rest and its proved value in the regimen of tuberculosis treatment, and that this statement should receive the widest possible attention. It is believed that bed rest should be maintained until the lesion is stabilized, as indicated by bacteriologic, X-ray, and clinical evidence.

This committee also wishes to reaffirm the desirability of at least starting the patient's care under sanatorium conditions for the purpose of patient indoctrination, the evaluation of his clinical problem, and the initiation of the various therapies.

BCG TUBERCULOSIS VACCINE

A report released recently by the Public Health Service recommends that BCG tuberculosis vaccine be used only in groups or communities where exposure to the disease is unusually high and where other means of control are inadequate.

The recommendation was made by a group of specialists in tuberculosis control appointed by Surgeon General Leroy E. Burney.

Made from a strain of living tubercle bacilli which does not produce active disease, but can produce some immunity, BCG has been used in tuberculosis immunization for more than 30 years and has had broad acceptance in certain European nations. There has been and still is wide variance of opinion as to its precise value, even in some of the countries that have been using it for many years.

In its report the committee pointed out that studies have shown that the effectiveness of BCG ranges from 0 to 80 per cent. Because of this wide range, the committee recommended against large-scale vaccination programs in this country. The committee concluded that use of the vaccine should be restricted to such special groups as physicians and other medical personnel working in hospitals having inadequate tuberculosis control programs, families in which a member with tuberculosis must remain in the home, and persons associated with institutions in which exposure is known to be high, such as certain mental hospitals and prisons.

The committee cited a number of reasons why large-scale BCG vaccination programs were not considered advisable in this country.

A basic objection, the committee said, is that BCG offers no protection to persons who are already infected and are most likely to develop active tuberculosis.

A second basic objection, the committee pointed out, was that widespread use of the BCG vaccine would cancel out permanently the effectiveness of the tuberculin test, by which it can be determined whether an individual is infected with tuberculosis. Since BCG causes all persons who have been vaccinated to react to the tuberculin test, its widespread use would eliminate one of the important tools for discovering infected persons and diagnosing tuberculosis.

IS MEDICINE IN THE "INSURANCE BUSINESS"?

More than 70 medical society-sponsored Blue Shield Plans are serving nearly one-fourth of the people of the United States, and underwriting about 40 per cent of all the basic surgical insurance and about 50 per cent of all the basic medical (nonsurgical) insurance now in force. The rest is underwritten by more than 800 private insurance companies and independent local plans.

Is medicine—by its sponsorship and control of Blue Shield—in the "insurance business"? Let's remember, first, that the medical profession organized these plans at a time when the insurance industry said it couldn't be done. And they were right. Medical care prepayment couldn't be organized and offered by an insurance company. It had to be done by medicine itself.

Blue Shield succeeded because America's doctors were behind it. They accepted less than normal fees for their services; they agreed to accept (and in many areas they have actually accepted) prorated portions of those fees when the local plan has been unable to pay the full schedule. Medicine's leaders have accepted the responsibility for guiding and directing their local Blue Shield Plans—a job that accounts for an incalculable number of unremunerated hours on the part of hundreds of the country's busiest physicians.

Have the members of our profession accepted these duties and responsibilities in order to put medicine "in the insurance business"? Certainly not! Medicine is in the business of providing medical care—nothing else. The profession has always been concerned with the ways and means by which patients pay for medical care and provide for future medical needs, and the profession quite naturally wants to control the basic economy of medical practice.

Medicine is not in the insurance business. But, through Blue Shield, the profession is in the business of helping patients pay for their doctors' services. And in the final analysis, the patient alone profits through participation in Blue Shield.

BLUE SHIELD MEDICAL CARE PLANS, INC.

In and Out of Focus

BY THE OBSERVER

". . . Clarion Call . . ." Declaring that the medical profession is in "serious peril," Dr. David B. Allman, President of the American Medical Association, called upon his fellow physicians "to embark upon a local action campaign to enlist the full support of your community" against what he described as socialistic legislation. "The stakes are high for the American people, for the medical profession, for the hospitals, and for all allied health groups."

Dr. Allman's plea for support was made at the opening session of the AMA's House of Delegates in Philadelphia last December. The target of his fire was legislation introduced in the first session of the 85th Congress by Representative Aime J. Forand, of Rhode Island, providing for hospitalization and surgical benefits to all old-age and survivors insurance beneficiaries.

"If passed," Dr. Allman charged, "the Federal Government would withdraw Social Security taxes on a compulsory basis from almost the entire working population and use those taxes to reimburse hospitals and physicians for services rendered to all persons—some 12 to 13 million—eligible to receive old age and survivors benefits.

"This is Socialized Medicine. This is Oscar Ewing's National Compulsory Health Insurance all over again. . . ."

Dr. Allman said he was well aware of the appeal that this legislation held for a substantial number of people:

"I admit that the Forand proposal would relieve a large segment of our population—the older folks, their children, management, labor unions, physicians and others—of their responsibilities, but I do not believe that the surrendering of the principle of self-reliance and the experience of private know-how for the abuse of Government dictation can solve the Nation's problems."

The solution of health care of the aged, he argued, lies in voluntary efforts. "In the field of old-age coverage the health insurance industry is beginning to make rapid and far-reaching strides. Because of the great changes in medicine and in medical care the industry has embarked upon vast experimentation with many plans, different approaches, and coverage for various groups within the old-age population. The experiments are being tailored to fit the variety of needs.

"Labor and management, too, are getting together in an attempt to provide health insurance coverage for retiring personnel.

"Many of the plans devised will not at first be perfect. I am sure, however, that as a result of the many studies in the field of old-age coverage we will come up with an answer—perhaps many answers—to the compound issue."

Looking ahead to the expected struggle over this legislation, he said:

"In this campaign to preserve the freedom of medical practice, we will be criticized for being negative and accused by our opponents of being reactionary. This is to be expected. It is the accepted technic used to discredit those who would oppose socialism."

Turning his attention to the efforts being made to compel physicians to come under Social Security, he said that the position of the AMA in opposition had been well publicized; also that comparatively few replies had been received following the wide distribution of a pamphlet entitled, "Which Way?" dealing with this subject. However, a number of the letters he had received criticized the American Medical Association for its unwillingness to conduct a poll of its members on this issue.

In this connection, he explained that the AMA is a federation of state and territorial medical societies which elect delegates who determine the Association's policies with respect to legislation and other matters. "This procedure, rather than decision by popular vote, has been followed by our Government and our Association because it permits a more considered opinion to prevail in formulating policy.

"I confess that there are honest differences of opinion on this issue. But the disturbing point of disagreement, to me, centered around our belief that if the medical profession were to request coverage under OASI it would tend to weaken our position in opposing the expansion of medical benefits under the Social Security System. Many also expressed the opinion that if compulsory coverage is good enough for the lawyers and dentists it is good enough for medical doctors.

"I for one am not willing to accept even a little bit of Socialism regardless of others who may be so inclined. I am opposed to the placement of expediency and the dollar sign ahead of principle. I prefer to keep our Government headed toward the goal of as much freedom as possible, as little government interference as necessary, rather than take the easy cloverleaf turn leading to more government and the emasculation of individualism."

There are a number of physicians with whom your Observer has discussed this matter who would not agree with Dr. Allman. Few persons, whether they be self-employed or employed by others, will take advantage of the retirement benefits afforded by Social Security. The limitation of earned income of those entitled to benefits to $1,200 annually is so modest that only in dire circumstances would they do so.

The amount paid into Social Security is a tax which all citizens pay at present except the medical profession. So the AMA's position in regard to participation of the medical profession in Social Security, it is said, is hardly tenable. Then, too, physicians who fall on hard times in their later years would welcome Social Security benefits.

The Reference Committee, to which Dr. Allman's address was referred, was fervently enthusiastic about his views. The Committee unanimously agreed that Dr. Allman had "forcefully sounded the clarion call to the entire profession for emergency action." It urged "complete unity, definition and singleness of purpose, closing of ranks, with all age groups and elements of our organization."

"It is time to stand and be counted, to shore up the courage of our convictions, and to start a system of training young physicians and members on the virtues of our free enterprise system. We must realize that there is no such thing as a 'touch' of Socialism."

★

We Are Favored Few members are aware of the Society's outstanding representation in the high councils of the American Medical Association and its impact on the decisions and policies of that organization. This has, in fact, been true for a number of years. It will be recalled that the Society's delegates to the AMA have, in the past, included such able spokesmen as Dr. Henry C. Macatee and, more recently, Dr. Herbert P. Ramsey. At present, the Society is especially fortunate in its representatives. Although it is hardly necessary to mention their names because they are so well known to most Washington physicians, there are undoubtedly facts about their recent activities with which a majority are unfamiliar.

Dr. Hugh H. Hussey now holds one of the top assignments in organized medicine. For a number of years a Society delegate, he was elected a member of the AMA's powerful Board of Trustees in Chicago in 1956. In the short time since his election, he has demonstrated his unusual capabilities and won high praise from his associates on the Board. They say of him that "he is the best thing that has happened to the AMA in a long time." His keen and analytical mind has apparently made a deep impression.

Because he is still a comparatively young man, much more is expected of him, and in the years to come it is certain that his influence in medical circles will continue to grow.

Dr. Raymond T. Holden, the Society's senior delegate, has also demonstrated superior qualities of leadership. In the years that he has served as a delegate, he has been appointed to several Reference Committees of the House of Delegates, on which he has served with distinction. This year he was Chairman of the important Reference Committee on Hygiene, Public Health, and Industrial Health. This committee had before it the most controversial issue in the recent session—the fluoridation of water. There had been much emotional as well as sound thinking on this subject. Several physicians delivered themselves of their views before Dr. Holden's Committee.

Needless to say, the Committee devoted many hours not only to the hearings but to preparing a forthright report in which it expressed itself in favor of fluoridation. Dr. Holden read the report on the floor of the House. There was sharp debate in which Dr. Holden judiciously took part. The report and its recommendations were adopted by overwhelming majority. One can look forward to still greater contributions toward the solution of national medical problems by Dr. Holden.

Dr. Victor R. Alfaro, the most recently elected delegate, is comparatively new, having been elected in 1956, but with his endowments he will give an excellent account of himself in the years immediately ahead.

Dr. Francis M. Forster, Dean of Georgetown University School of Medicine, is also a delegate representing the AMA's Section on Nervous and Mental Diseases. While he does not represent the District Medical Society in the House of Delegates, he is, nevertheless, "a hometown doctor." Internationally recognized in his field, he carries great weight, not only in regard to his specialty but in the consideration of medical issues of a general nature.

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The Third Party

There is a growing concern among many physicians over the increase in the number of people whose medical bills are paid by a third party. They envision the not too distant day when patients will no longer pay physicians directly for their medical services.

To those familiar with the medical socioeconomic trend, this development has long been anticipated. Most agree that in another decade, or perhaps less, a vast majority of the population—perhaps 90 per cent—will avail themselves of the more or less complete protection against medical and hospital expenses.

Evidence to support this point of view is the phenomenal growth of voluntary health insurance. Statistics supplied recently by the Health Insurance Council show that since 1940 the number of persons with hospital expense insurance has increased from 12,312,000 to 115,949,000 at the close of 1956. During the same period persons having surgical expense protection has increased from 5,350,000 to 101,325,000. Regular medical expense insurance has had a slower growth, there being 3,000,000 protected in 1940 and 64,891,000 at the close of 1956. The Council reports, however, that this protection is growing more rapidly than the other three types of health insurance.

So-called major medical expense insurance is comparatively new and is offered by commercial insurance companies and, to a limited degree, by Blue Shield Plans. In its report the Health Insurance Council states that there has been "a tremendous increase in public interest in this form of health insurance since its inception seven years ago."

"Major medical expense insurance," the Council explains, "is designed to reduce the catastrophe of the great costs of serious or prolonged illness. Generally speaking, major medical plans are broad in scope and do not categorize medical costs into hospital charges, doctor's charges for surgical procedures, etc. Rather, major medical plans bring within their scope all reasonable medical costs incurred by an insured person under the care of a physician in or out of the hospital. This includes private duty nursing charges and expenses for drugs and appliances, as well as hospital and doctor's charges. As a rule, three features identify major medical expense insurance. These are: the 'deductible,' 'co-insurance,' and the maximum benefit limit of the policy."

Most readers of this column are familiar with the "deductible" feature in other types of insurance. With respect to major medical expense coverage, the accumulated medical bills must reach a specified amount—average $100—before the subscriber or policyholder is entitled to the benefits under his contract or policy. The insurance company or the Blue Shield Plan then pays 75 to 80 per cent of the remaining medical bills ("co-insurance feature") up to the maximum benefit level. The maximum may go up as high as $10,000.

If the public continues to show interest in this form of protection, it will have a profound effect on a third party responsibility for medical bills. At the present time 8,876,000 have this form of protection. Incidentally, this is intended to be supplementary to the basic or regular medical and hospital expense insurance.

In the offing are other forms of health protection against medical and hospital costs. Labor health and welfare funds have grown tremendously in recent years. Unions responsible for their disbursements are, in many instances, still undecided as to what arrangements they wish to enter into for the purchase of medical service. There is also the expected legislation which will provide funds necessary for the purchase of health insurance coverage for Government workers.

The encouraging thing about this picture is that, to date, protection against medical and hospital expense has been provided on a voluntary basis. Obviously, the situation cannot remain static. Demand for more comprehensive protection is a challenge still to be met.

In this situation physicians must expect and accept the fact that there will be a progressive transfer of financial responsibility for medical bills to a third party. It is hoped that dangers to the medical profession inherent in this situation will be avoided.

Much concern, and properly so, is expressed by physicians with respect to Government domination. However, the profession would find itself in an unenviable position if any one organization or institution enjoys a monopoly. For example, if commercial insurance companies dominated the field to the exclusion of all others, they would, because of volume alone, have to place restrictions on medical costs and services comparable to what has been done under the Workmen's Compensation laws. This would be equally true if voluntary plans had a monopoly.

With respect to the physicians themselves, their opposition to the third party responsibility for medical costs would bear little fruit. Their self-interest would be best served by giving intelligent and enthusiastic support to the Blue Shield Plans. They may not like many things about these plans. It would be surprising if they did. But they should not forget that they are the only media in which they really have a voice.

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Michigan Appraises Prepaid Medical Care

One of the most ambitious and significant opinion studies of prepaid medical care has just been completed in Michigan. It was financed by and conducted under the direction of the Michigan State Medical Society. A report on this study has just been made available to the Society. Unfortunately, space does not permit publication of much of the interesting material which it contains. Due to limitation of space, your Observer must be content to report what he considers some of the highlights.

Introduction to the report which follows concerns itself with the economic situation and problems confronting Michigan's Blue Shield Plan.

"Prosperity was general in the year 1957. People were working and making money. Jobs were plentiful. Yet, because of inflation, people were sometimes hard put to make ends meet.

"Although the costs of all products and services were increasing, one of the most galling bills to pay was the doctor's bill.

"While, realistically, people accepted the fact that their doctor was a highly trained, skilled scientist, they did not fully appreciate the rapid advances in his science. Many scientific changes, such as the administration of anesthesia, for example, offered greater protection to the patient—but sadly enough they cost him more money when he went to a hospital for an operation. The new drugs lessened the patient's stay in bed and got him back to work sooner, but it was more painful to pay for the prescription.

"There were other changes taking place, too—socioeconomic changes in which people in 1957 sought and expected greater security in the financial returns from their jobs. Fringe benefits became the accepted and demanded right of the individual.

"So they came to expect it.

"But nothing is free. The economic facts of life still continued to operate. Costs continued to rise, and the medical insurance plan which fitted the financial structure of the Forties was an economic lag in the Fifties. The doctors realized it and began to make a careful appraisal of these plans to see where changes could be made.

"It was about that time that the labor unions saw an opportunity for a new approach in fertile fringe benefit territory. Whenever they demanded higher wages, the higher wages merely increased the cost of the products, and added to the spiraling inflationary process. That left the worker with little net gain in the value of his take-home pay. So labor turned its attention to the sociologic programs in which health insurance plans were one of the most important to union members. Labor talked of increases in benefits which would lead to full medical coverage in such programs as the Blue Shield Plan operated by the doctors of medicine, and they threatened to start their own medical plan if the doctors did not accede.

"It was in this climate of social and economic change that the Michigan State Medical Society's Opinion Study of Prepaid Medical Care Coverage in Michigan was born."

In undertaking the study the Society sought the answers to the following questions:

"1. What medical services do people want covered by medical prepayment plans, and what do they feel is the order of priority for these services?

2. How much will people be willing to budget for these services, and which of the services are they most willing to pay for?

3. What do doctors want from any prepaid medical or health insurance plan?

4. What data are available from other surveys conducted throughout the United States recently on the same questions?"

One thousand individuals were interviewed in 85 "census tracts" throughout the state by the Market-Opinion Research Company of Detroit. The views of physicians were obtained by means of a questionnaire sent members of the Michigan State Medical Society. Of the 6,328 questionnaires which were delivered, 2,435 were returned, or 38.5 per cent, which was considered more than adequate.

Among the conclusions reached on the basis of the information obtained were the following:

Blue Shield is popular in the State; 81 per cent of the people who have it like it.

[Eight out of 10 persons in Michigan are covered by some form of health insurance. Six of 10 covered by health insurance are protected by Michigan's Blue Shield Plan—Michigan Medical Service.]

Members of unions have a slightly more favorable opinion of Blue Shield than the general population. Even a greater percentage are favorable when compared with non-members of unions. Most of the unfavorable reactions were expressed in Detroit. High subscription rates were given as the predominating reason when any was expressed.

Doctors like Blue Shield even though they feel that its service can and should be improved. They are more skeptical of the favorable attitude held by people than the facts warrant.

Doctors, generally, are not opposed to health insurance being sold by insurance companies. A minority are of the opinion that the medical profession should "get out of the health insurance business altogether."

They do not like plans which propose closed panel service.

Their chief objection to Blue Shield is "inequities" in the schedule of payments they receive for services. They say the fee schedule hasn't kept pace with the changing science of medicine, nor the rising costs of living.

Most people who have an unfavorable attitude toward Blue Shield have it because they don't understand what benefits they are entitled to and have an exaggerated concept of the amount of money they pay for protection.

There is evidence of sufficient dissatisfaction with various and sundry aspects of Blue Shield to warrant investigation of changes which might improve it, both from the standpoint of rates and benefits as well as payments to doctors.

Great numbers of people are almost shockingly unfamiliar with the provisions of their Blue Shield contract or their insurance policy.

Most doctors believe that some benefits not presently included in the Blue Shield contract should be. This is particularly true of generalists and internists.

Most doctors agree that if outpatient diagnostic benefits were added to the Blue Shield contract, such benefits should not be limited only to treatment in a hospital outpatient department, but should be qualified if the treatment were in the doctor's office or certified laboratories, too.

They agreed that the service principle should apply to those subscribers in the $7,500 and below income bracket providing the payment to doctors for their services were increased.

People are willing to pay more than they are now paying for prepaid medical care coverage.

A deductible feature is popular with a large number of people—almost a majority when it is predicated upon a lowering of monthly premium costs.

The majority of doctors in private practice want and need Blue Shield, believe in its policies, abide by its principles, and are satisfied with its administration.

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"Too Many Chiefs—" Physicians who find stimulation in forthright speech and controversy should make it a point to sit in on meetings of Reference Committees of the AMA's House of Delegates. As stated by the Society's delegates on several occasions, all members of the Association are welcome to attend Committee hearings.

Perhaps it would be well to explain the purpose of these committees and the manner in which they function. As is well known, the House is composed of representatives from all states and territories of the United States. It is presided over by the Speaker, who at times is relieved by the Vice Speaker, both of whom are elected to their posts by the House. The Speaker appoints the Reference Committees to which all resolutions introduced in the House are referred on the basis of subject matter. Each designated Committee considers resolutions within a specific field, i. e., Amendments to the Constitution and By-laws; Reports of Board of Trustees and Secretary; Credentials; Executive Session; Hygiene, Public Health, and Industrial Health; Insurance and Medical Service; Legislation and Public Relations; Medical Education and Hospitals; Medical Military Affairs; Reports of Officers; Rules and Order of Business; Sections and Section Work; and Miscellaneous Business.

Committee hearings are held on the day following the opening session of the House, which does not convene again until the third day. It is at these hearings that sponsors of resolutions and those who favor or oppose them are heard. There is usually no hesitancy on the part of those who testify to say what they have on their minds. Sometimes that is plenty.

When the testimony is concluded, committees go into executive session and, on the basis of what they have heard, the material provided them, and their own judgment, prepare their reports, in which recommendations are made to the House. More often than not there is little debate on the floor. If there should be, it is rather mild compared to the testimony before the Committee.

Resolutions which usually create the most heated discussions are those in which interference with medical practice by non-medical individuals and groups is complained of. Those dealing with obstacles to free choice of physicians by the patient, contract and corporate practice of medicine are certain to provoke some strong talk. On occasion this has led to the statement that doctors are poorly organized or the conditions complained of would not exist. Sometimes this is followed by the suggestion that doctors form a union. There are always those who applaud this idea but the majority shrink from it. So far, it has never been considered seriously, but that does not suppress the handful who favor unionization.

At the last meeting of the House the Reference Committee on Insurance and Medical Service had before it resolutions condemning the activities of the United Mine Workers with respect to free choice of physician by miners entitled to benefits under the union's health program. An indignant physician, in a burst of eloquence, insisted that only a physicians' union could cope with UMWA's objectionable medical policies.

Dr. Charles G. Hayden, the steady, able delegate from Massachusetts, calmly summed up the proposal as follows: "It won't work—there are too many Chiefs and too few Indians."

When the laughter subsided no one ventured to revive the proposal.

T.W.

MEDICAL EMERGENCY DISASTER SERVICE IN D. C.*

In a report to the Committee on Emergency Medical Service of the Medical Society of the District of Columbia, November 21, Dr. Edwin C. Mitchell, head of the Medical Emergency Disaster Service, described the Service's practice alert which was held in May, 1957. Dr. Mitchell reported that of the 44 doctors alerted, 34 arrived within 10 minutes to 1 hour at the designated rendezvous, the Disaster Hospital located at 13th and Upshur Street, N.W. Following the practice alert, each physician was issued an emergency medical kit, to be carried in the trunk of his automobile, which contains enough medical supplies to treat approximately 20 injured patients.

Dr. Mitchell and the Committee members were of the opinion that the practice alert was an outstanding success.

Plans are under way to sponsor a Course in Disaster Medicine in the early spring and a subsequent MEDS practice alert.

The Chairman stated that at the next practice alert participating physicians would receive special arm bands and pennants for attaching to the radio antennae on their automobiles. These distinctive insignia, which have been approved by the Metropolitan Police Department, would identify physicians of the Disaster Service when they are on disaster call.

James E. Chapman, M.D.
Chairman, Committee on
Emergency Medical Service
of Washington Metropolitan Area

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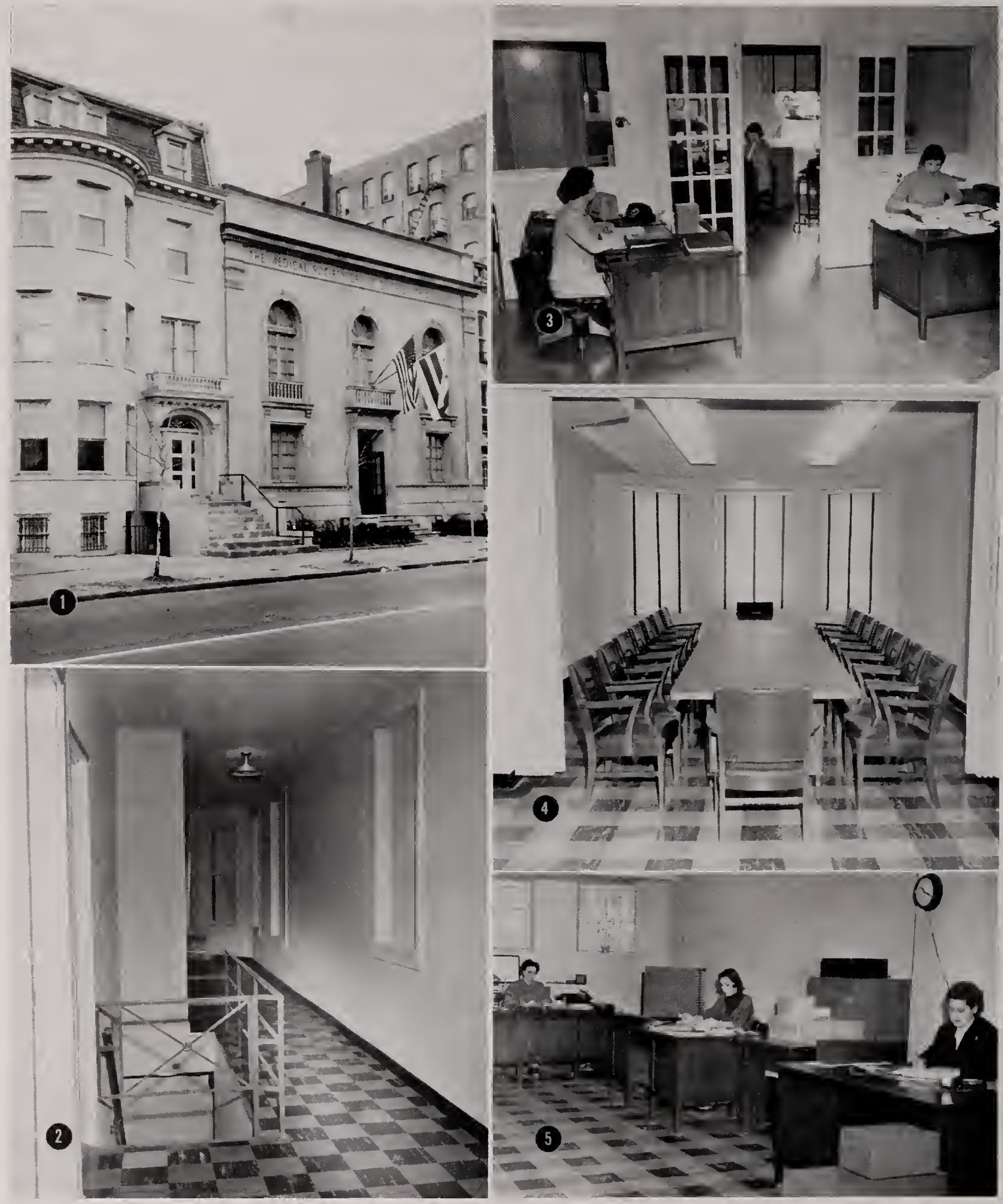
* This is the first of a series of reports on the plans and activities of the Medical Society's Committee on Emergency Medical Service of the Washington Metropolitan Area.



NEW LOOK AT 1710–18 M STREET, N.W.

(1) Exterior of 1710 M Street was given a face lifting to make it similar in appearance to the Society's home building; (2) new hallway leading to downstairs offices and to Medical Bureau; (3) front offices, for stenographic and Medical Annals' staff; (4) one of the new committee rooms on second floor, adjacent to the Medical Society's library; (5) downstairs offices, converted from part of the basement, providing space for bookkeeping department and special office equipment.

PROCEEDINGS OF NOVEMBER BUSINESS MEETING

On November 27, 1957, a special business meeting was called by officers of the Medical Society of the District of Columbia in order to present to the membership a number of amendments to the Constitution and By-laws and other matters which needed prompt attention. The amendments concerned the proposed reorganization of the Medical Society, as recommended to the membership at the March Business Meeting by the Study Commission on the Reorganization of the Medical Society (see April issue, pages 201–4).

Dr. James W. Watts, President of the Society, who presided at the meeting, invited Dr. Raymond T. Holden, senior delegate to the House of Delegates of the American Medical Association, to address the members. Dr. Holden described the organization of the House and the duties of the delegates. He urged those present to attend the Clinical Meeting of the AMA to be held in Philadelphia, December 3–6, and if possible to attend at least one session of the House. Dr. Holden stated that if anyone had a resolution which he would like presented to the AMA's House of Delegates, he and Dr. Victor R. Alfaro, the junior delegate, would be glad to present it.

Dr. James A. Gannon, Sr., stated that he had a resolution which he would like to have introduced, reading as follows:

"RESOLVED: That much television and radio advertising in matters regarding the preservation of health is detrimental to the audience because it is misleading, untruthful and encourages dangerous self-medication.

"*And be it further resolved*, that the Medical Society of the District of Columbia believes that such advertising is not in keeping with the best interests of the public health.

"THEREFORE, *be it resolved* that the delegates to the American Medical Association be instructed to urge the House of Delegates to vigorously oppose such advertising and to propose legislation for the purpose of its elimination."

Dr. Gannon's resolution was approved, and the Society's delegates were instructed to introduce it in behalf of the Society at the Philadelphia session of the AMA's House of Delegates.

The Chairman called for a brief report from Dr. William Ross Morris, Chairman of the House Committee. In his report Dr. Morris accounted for the funds which had been allocated to his Committee for the remodeling of the building at 1710 M Street, N.W. The plans for the restoration and remodeling of the building at 1710 M Street, together with proposed means of financing the project, were published in the report of the House Committee in the April issue of the ANNALS, page 204.

The House Committee had estimated that the overall cost would be approximately $75,480.00, and not more than $80,000 to $85,000. As of the date of his report, the total expenditures had been $78,758.81, and it appeared that the final cost might exceed the $85,000 by some $2,000.

The House Committee was of the opinion that the income which will accrue from rental of the third and fourth floors, which have been converted into efficiency apartments, will in time pay for the work that has been done on this property.

Following the business meeting, members present were given an opportunity to inspect the building at 1710 M Street. They were shown the Medical Society's new offices in the basement, the rooms which had been renovated on the first floor, the new committee rooms on the second floor, now accessible from the Society's library, and the modern efficiency apartments on the third and fourth floors. It seemed the consensus of those present that the completed task was most satisfactory. A vote of thanks was given Dr. Morris and the members of his Committee for the considerable time and effort which they had expended in the planning and follow-through of this major undertaking.

Dr. Herbert P. Ramsey, Chairman of the Executive Board, presented a special report of the Board which is printed following these proceedings. The report, as a whole, with a small amendment,* was adopted.

At the conclusion of his report, Dr. Ramsey called Joseph H. Imes, who has served as building custodian of the Medical Society for more than 25 years, to the platform, and in behalf of the Society expressed appreciation for his loyal service and for his friendship to the members. Because of some infirmities, "Joe," as he is affectionately known, has curtailed some of his services, but he still resides on the premises and cares for the property. Dr. Ramsey presented Joe with a meerschaum pipe as a gift from the Board. Joe gave a brief speech of acceptance and was given enthusiastic applause as he left the platform.

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* See "A Guide for Practice, Medico-Legal Relations for the District of Columbia," page 45. The word *before* in B-1 was substituted for the word *of*.

Prior to the opening of the business session, members were given a preview of the film, "Time and Two Women," at the request of the District of Columbia Division of the American Cancer Society. A description of the film appears on page 47 of this issue.

The Chairman announced that the next business meeting of the Society would be held in January for the purpose of acting on amendments which were submitted at the November meeting. If these amendments are adopted at that time, the recommendations of the Study Commission on the Reorganization of the Medical Society will become effective.

At the conclusion of the business session and tour of the building, light refreshments were served in the Medical Society's library.

SPECIAL REPORT OF THE EXECUTIVE BOARD

This special business meeting of the Society has been called for the purpose of considering matters which the Executive Board believes should have immediate attention. Other business of a more or less routine nature will be considered at the Annual Business Meeting.

Amended Rules for Classification of Members According to Type of Practice. The Society first approved the classification of its members according to type of practice on May 1, 1946. Shortly thereafter the classification list was made available to the Medical Bureau for its use in providing reliable information about physicians to the public. At various subsequent times the list has been brought up to date.

The rules under which the members were classified have not changed materially since their original adoption. However, at its meeting on May 27, 1957, the Executive Board voted to amend them in the manner indicated below. The amended portions are italicized; the remainder are the original rules.

1. To be classified as a specialist, a physician must be recognized as such by a Class A hospital or by a group of specialists or special societies approved by the Classification Committee.
2. Each physician appearing on the list of specialists will be required to state his qualifications.
3. Physicians claiming a specialty must limit themselves (80 per cent) to a single field; however, they may claim a subspecialty.
4. Qualifications of physicians claiming specialties will be investigated by members of the Committee in their respective fields. *Where there is a Section of the Society on the specialty, the qualifications of the applicant must be reviewed by the Section before approval is granted.*
5. The classification list will be submitted annually to the Executive Board for its approval.
6. *Every newly elected member of the Society shall be given a classification form and instructed to fill it out immediately.*
7. *Every three years all members of the Society will be requested to state whether they wish to make any change in their classification.*

The Board submits the above rules as amended for Society approval.

A Guide for Practice, Medico-Legal Relations for the District of Columbia. At a meeting of the Committee on Coöperation with the D. C. Bar Association on October 5, 1956, it was proposed that a manual be prepared which would contain rules for the conduct of members of both the medical and legal professions where matters of law are concerned. A joint subcommittee was created consisting of 2 members of the Bar Association's Committee on Coöperation with the Medical Society and 2 of the Society's Committee. The Subcommittee submitted a draft of a manual to the Society's Committee on May 9, 1957. The Committee approved what was entitled "A Guide for Practice, Medico-Legal Relations for the District of Columbia" and referred it to the Executive Board with the recommendation that its adoption by the Society be recommended.

The board at its meeting on May 27, 1957, gave its approval and directed that a copy of the Guide be forwarded each member of the Society.* You who are present and the Active and Life Members of the Society have had an opportunity to review the Guide. It now rests with you whether the Guide shall be adopted. Incidentally, the Guide has already been approved by the Bar Association.

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* The Guide as amended is published in full in this issue, beginning on page 45.

Amendments XXXII, XXXIII, XXXIV, and XXXV. These amendments, with the exception of Amendment XXXV, which was referred back to the Board for revision, were submitted at the Annual Business meeting on May 1, 1957, and, as required by the Constitution and By-laws, held over until this meeting for action. The amendments to be voted on are as follows:

AMENDMENT XXXII

Section 1. Section 2 of Article II of Chapter IX of the Constitution and By-laws is hereby amended by changing the name of the Section on Neurology and Psychiatry to the Section on Neurology, Neurosurgery, and Psychiatry.

AMENDMENT XXXIII

Section 1. Section 1 of Amendment XXIII of the Constitution and By-laws is hereby repealed.

Section 2. Articles I and V of Chapter VIII of the Constitution and By-laws are hereby amended by changing the name of the Committee on Public Information to the Committee on Public Information and Education.

AMENDMENT XXXIV

Section 1. Section 2 of Amendment XXVIII of the Constitution and By-laws is hereby amended by changing the name of the Board of Censors to the Board of Credentials.

The first two amendments need no explanation. In regard to Amendment XXXIV, which changes the name of the Board of Censors to the Board of Credentials, it is the Executive Board's opinion that the latter is a much more appropriate name. It does not suggest a censuring body but rather one which reviews qualifications for membership.

Amendment XXXV has been rewritten and is being submitted with other amendments to the Committee on Constitution and By-laws for action at a later meeting.

Proposed Amendments XXXV–XLVI to the Constitution and By-laws. As stated above, the following amendments will not be voted on until the next business meeting:

AMENDMENT XXXV

Any active or life member of the Society may, at his option, join any Section provided that such member is qualified in the specialty which the Section represents, in accordance with the rules of the Society, except that the Section through its own channels may approve a member of the Society for membership in the Section prior to classification by the Classification Committee of the Society. Such members must conform to financial or other regulations as may be imposed by the Section, under penalty of forfeiting membership in the Section in case of not so conforming. Any active, life, or associate member of the Society not so qualified shall be privileged to attend the meetings of any Section but without active participation unless invited by the Chairman of the Section.

AMENDMENT XXXVI

Section 1. Article I of Chapter VIII of the Constitution and By-laws is hereby amended by adding thereto the following:

13. Cancer Morbidity Review Committee

Section 2. Chapter VIII of the Constitution and By-laws is hereby amended by adding thereto the following:

Article XV. The Cancer Morbidity Review Committee shall review hospital records of patients currently under treatment for cancer, the objectives of this procedure being the education of physicians, and the development of better methods of cancer detection and treatment.

Section 3. The Cancer Morbidity Review Committee shall consist of nine members, including a chairman and vice chairman, appointed by the President and confirmed by the Executive Board, three of whom shall be appointed for three years, three for two years, and three for one year. On expiration of their respective tenures subsequent members shall be appointed by the President and terms confirmed by the Executive Board for reappointment the year following a three-year term.

AMENDMENT XXXVII

Section 1. Sections 2 and 2A of Article I of Chapter III of the Constitution and By-laws and Sections 2 of Amendment II and Amendment VII to the Constitution and By-laws are hereby repealed.

Section 2. The Annual Scientific Assembly shall be held in November and the Midwinter Seminar in February of each year on dates determined by the Executive Board. This portion may be altered by action of the Board as to the time these meetings are held.

Section 3. The annual business meeting of the Society shall be held in November preceding the opening session of the Annual Scientific Assembly, on a date selected by the Executive Board. This meeting shall be devoted to the reception of annual reports and other business including the nomination and election of officers as hereinafter provided.

AMENDMENT XXXVIII

Section 1. Section 3 of Amendment XVIII to the Constitution and By-Laws is hereby repealed.

Section 2. Associate members, commencing January 1, 1958, shall pay $15.00 annual dues.

AMENDMENT XXXIX

Section 1. Section 6 of Article I of Chapter V of the Constitution and By-laws is hereby repealed.

Section 2. The Treasurer shall give a bond in such amount as may be ordered by the Executive Board. He shall demand and receive all funds due the Society together with bequests and donations. He shall sign all checks, but all expenditures shall be reviewed monthly by the Finance Committee of the Executive Board, consisting of two voting members and the Treasurer. All of the Treasurer's accounts shall be subject to such examination as the Executive Board may order.

AMENDMENT XL

Section 1. Articles II and III of Chapter VI of the Constitution and By-laws are hereby repealed.

Section 2. Nominations for office and election of officers shall be held at the annual business meeting in November of each year. A nominating committee shall be elected in the following manner:

Ballots, on which appear the names of twenty-one active and life members representative of various sections and medical institutions in the District, chosen by the President of the Society, and confirmed by the Executive Board, shall be sent to all active and life members. Members shall be instructed to vote for not more than seven of the twenty-one members, otherwise their ballots will be void. The seven members receiving the highest number of votes will be declared members of the Nominating Committee.

Ballots shall be mailed to all active and life members on or before October 1 and returned not later than October 15. Envelopes in which ballots are delivered to the Society's offices shall bear the following legend in the lower left-hand corner: "Nominating Committee." They will not be opened, except in the presence of two or more tellers appointed by the President.

Nominees for office shall be presented at the annual business meeting by the Chairman of the Nominating Committee. The Committee shall present one or more candidates for each office. A list of the nominees shall be sent to the membership with the notice of the meeting at which nominations will be presented. Additional nominations may be made from the floor.

Section 3. The official year shall be from the first day of January through the thirty-first day of December.

AMENDMENT XLI

Section 1. Article I of Chapter VII of the Constitution and By-laws is hereby amended as follows:

The words "in May" in the first sentence thereof are hereby deleted and the words "in November" are substituted in lieu thereof.

AMENDMENT XLII

Section 1. Section 1 of Article VIII of Chapter VIII of the Constitution and By-laws is hereby amended as follows:

The words "complete stenographic" are hereby deleted from the sentence, "In all instances a complete stenographic record of complaints, proceedings, and other matter pertinent to the question involved, shall be kept by the Committee, subject to call or examination of the Executive Board and/or of the Society."

AMENDMENT XLIII

Article I of Chapter IX of the Constitution and By-laws is hereby amended as follows:

The words "and annually in May" appearing in line seven thereof are hereby deleted and the words "and annually in November" are substituted in lieu thereof.

AMENDMENT XLIV

Section 1. Articles I and III of Chapter XII of the Constitution and By-laws are hereby repealed.

AMENDMENT XLV

Section 4 of Amendment XVII to the Constitution and By-laws is hereby amended as follows:

In the first sentence, after the words "not eligible for active or affiliate membership," add the words "and who are members of a constituent association of the American Medical Association."

At the end of the first sentence add "Discontinuance of membership in such a constituent society shall automatically terminate associate membership in this Society at the end of that current organizational year."

This section will then read:

Section 4. Associate members shall be doctors of medicine who are not eligible for active or affiliate membership, and who are members of a constituent association of the American Medical Association, or scientists engaged in collateral lines of activity or research. Discontinuance of membership in such a constituent association shall automatically terminate associate membership in this Society at the end of that current organizational year. They shall be elected in the same manner as active members; they shall have the privilege of attending and participating in scientific sessions of the Society and shall receive its publications and notices of its scientific meetings; they shall not vote or hold office in the Society; they shall be subject to its discipline and pay such dues and assessments as may be imposed by the Society. Associate members upon becoming eligible for active or affiliate membership shall make formal application for such active or affiliate membership. On failure to do so within three months, they shall cease to be associate members.

AMENDMENT XLVI

Section 1. Section 2 of Amendment XXIII of the Constitution and By-laws is hereby repealed.

Section 2. Section 1 of Amendment XIX of the Constitution and By-laws is hereby amended by changing the name of the Committee on Medical Ethics and Deportment to Case Review Committee.

At the next business meeting the purpose of the amendments and the manner in which they will implement the reorganization of the Society will be set forth. It will be recalled that at the business meeting on March 6, 1957, proposals for reorganization were adopted.

Approval of the recodification of the Constitution and By-laws following the adoption of such amendments as meet the approval of the Society will also be sought. This will eliminate all amendments at least for a time.

Medical Council of the Washington Metropolitan Area. Organization of the Council was first proposed to the Executive Board at its meeting in December, 1950. The proposal was enthusiastically received and the Secretary was directed to communicate with all medical societies in the area. All but one favored the proposed organization. In view of this opposition the project was dropped. What prompted its revival some years later was the Medicare Program.

All county medical societies in the Metropolitan Area had petitioned the Department of Defense to become participants in a contract entered into by the Department and the Society. Both parties being agreeable, negotations were concluded on this basis.

This seemed an opportune time to approach the county medical societies in the metropolitan area again in regard to the organization of the Medical Council. Letters were dispatched to presidents of these societies extending an invitation to them to be guests of the Society at a dinner on January 29, 1957. At the meeting which followed the dinner the following points were unanimously agreed upon:

1. There is an urgent need for the proposed organization and the medical societies represented should be encouraged to participate.
2. The name of the organization shall be the Medical Council of the Washington Metropolitan Area.
3. The Council's activities shall be limited to discussions of problems of mutual interest, and recommendations. In other words, the participating medical societies will not be governed by the actions of the Council. The Council will vote on matters before it, with the understanding that all of its actions are subject to ratification by the organizations represented.
4. Membership in the Council shall consist of 3 representatives of each organization, i. e., the President, the Past President, and the President-elect. Invited to meetings of the Council shall be the executive secretaries of the organizations which employ them.
5. Officers shall consist of Chairman, Vice Chairman and Secretary, to be elected at the first meeting following the decision of all medical societies in the area to participate.
6. Meetings of the Council shall be held 3 times a year at 4-month intervals, unless otherwise called by the Chairman or requested by 3 or more members of the Council.
7. Regular meetings of the Council shall be held at Washington hotels, as they are the most centrally located in the area. These meetings shall be preceded by a dinner, each group paying its share of the cost.

Since the above date 2 meetings of the Council have been held at which problems of mutual interest to the organizations represented have been discussed.

One of the first projects to be sponsored by the Council itself is a Medical Economics Forum, which will be presented early next spring and will be underwritten by the W. S. Merrell Company. This promises to be one of the most outstanding meetings of its kind ever held in this area.

The Board believes that the Council has great potentialities for good for both the public and the profession.

Remodeling of 1710 M Street, N.W. You have just heard a report of the House Committee on the remodeling of the building next door. The Board feels certain that the members who are here tonight will be pleased when they view the results of months of effort which has gone into this project, not only in actual construction but also in planning and supervision.

Innumerable problems have arisen during the 6 months that the work has been in progress. Too much credit cannot be given to Dr. W. Ross Morris and his House Committee. Dr. Morris has given unselfishly of his time and the Board wishes to express its deep thanks to him for bringing the project to a successful conclusion.

Election of Medical Society Representative to the Board of Trustees of Medical Service. In a communication dated September 13, 1957, received from Dr. Donald Stubbs, President of Medical Service of the District of Columbia, attention was called to the method of nominating members of the Service's Board of Trustees by both professional and public groups.

"In recent years," Dr. Stubbs wrote, "as the importance of Board selection has become more apparent to physicians, there has been growing concern about the operative method." This matter, he reported, had been reviewed by the Service's Physician Relations Committee, its Executive Committee, and its Board of Trustees. Among other proposals, nominations from the floor at the annual meeting of Participating Physicians had been considered.

The Board of Trustees, Dr. Stubbs stated, had reached the following conclusions:

1. Medical Society nominating groups should be encouraged to consider submitting more than 1

name for each Board position to be filled by vote of Participating Physicians. However, they should retain the right to have the election of a nominee completed within their own organization if they so desire, and send the single name for confirmation by Participating Physicians. The By-laws have been amended to permit this choice.

2. In the belief that much of the dissatisfaction which has existed has resulted from misunderstanding, it is urged that precise information be presented to each Medical Society member by which he can, in advance, know in detail the time and method of nomination for Medical Service Board members. The facilities of Medical Service are available to help publicize this information as soon as it is released by the Medical Society.

The Medical Society's Executive Board has concurred in the above conclusions and recommends their approval by the Society.

Plans to Cope with an Emergency in the Event of an Asian Influenza Epidemic. It would appear that the threatened Asian influenza epidemic has abated and that there is no immediate threat of widespread recurrence of this type of influenza. The Executive Board wishes you to know, however, that a stand-by program was developed in which the Society would take a very active part. The program proposed by the Asian Influenza Advisory Committee has been approved by the District Commissioners, who issued Order No. 57–1947, authorizing its being placed in operation in the event of an emergency to be determined by the Director of Health.

The Committee on Public Health took the first step toward implementing the Society's role in the program when it canvassed members for volunteers who, in a serious emergency, would agree to provide medical care to indigent patients suffering from Asian influenza and other conditions requiring medical attention. Fees for home calls, it was stated, would be $5.00 for 1 patient per visit and $2.00 for each additional patient treated at the home during the visit, to be paid by the District Government.

Until recently the District Government was employing 5 "physicians to the poor" on a part-time basis. These physicians became so burdened with calls that their number has now been increased substantially. However, in the event of a serious epidemic the above plan will of necessity be placed in operation.

To date about 180 members have volunteered to participate in the above program should it become necessary.

Cancellation of Borderline Certificates. In a communication dated October 9, 1957, the Society was informed by Mr. Paul Foley, Deputy Director of the Department of Occupations and Professions, District of Columbia, that he had received a letter from the Maryland Board of Medical Examiners, which he enclosed, stating that borderline certificates issued to District physicians attending patients in Maryland had been canceled. In taking this action the Board stated it was unanimously decided to abide strictly by Maryland law, which provides in Section 138 that licenses are not required for

> "physicians or surgeons residing on the borders of a neighboring state, and duly authorized under the laws thereof to practice medicine or surgery therein, whose practice extends into the limits of this state; *provided, that such practitioners shall not open an office or appoint places to meet their patients or receive calls within the limits of this state without complying with the provisions of this subtitle; provided, that the same privileges be accorded to licensed physicians of this state.*"

Mr. Foley states that in view of the Maryland Board's position borderline permits issued to Maryland physicians coming into the District will undoubtedly be canceled by the District's Commission on Licensure as of January 1, 1958. The matter is to come before the Commission on December 9, 1957.

26th Annual Scientific Assembly. The Board was much pleased with this year's ASSEMBLY not only from the standpoint of attendance but also because of the unusual interest in the scientific sessions.

Conclusion. In view of the necessity for prompt action on Amendments XXXV through XLVI, a special business meeting of the Society will be held in January. The date has not yet been chosen but ample notice will be given the membership.

Respectfully submitted,
HERBERT P. RAMSEY, M.D., *Chairman*
RALPH M. CAULK, M.D.
W. LEROY DUNN, M.D.
RAYMOND T. HOLDEN, M.D.
PRESTON A. MCLENDON, M.D.
W. ROSS MORRIS, M.D.
JAMES W. WATTS, M.D.
THEODORE WIPRUD, *Secretary*

THE WASHINGTON HOSPITAL CENTER*

VICE ADMIRAL WARWICK T. BROWN, M.C., U.S.N. (RET.)

Administrator, Washington (D. C.) Hospital Center

The particular physical features of the Washington Hospital Center are designed and installed for one purpose, that of contributing to a high standard of patient care. Stated in another way, the hospital is designed and equipped to provide the environment and facilities for good care of the sick and injured by the physicians, nurses and medical technicians working within its walls. In the final analysis, it is these people who set the standard of patient care, and in this respect the merger of three hospitals into the Center brings together a professional staff which, I believe, is unsurpassed in the Washington area.

The Center, now nearing completion at the southwest corner of the Soldiers Home grounds, is a voluntary, nonprofit institution. It is not a Government hospital, not a city hospital, but a community hospital. In other words, it is your hospital, designed as an "acute" general hospital. By "acute" I mean that predominately the patients will be those needing short-term hospitalization rather than long-term treatment for chronic conditions.

Historically, it represents the merger of 3 voluntary, nonprofit hospitals of the District of Columbia—The Central Dispensary and Emergency Hospital, established in 1871, the Garfield Memorial Hospital, established in 1882, and the Episcopal Eye, Ear and Throat Hospital, established in 1897. Also historically, practically all of the nonprofit hospitals in the District of Columbia have received Government aid in varying amounts for their construction.

The Washington Hospital Center is built under an Act of Congress, Public Law 648 of the 79th Congress, approved August 7, 1946, and generally known as the Washington Hospital Center Act—"To provide for the establishment of a modern, adequate and efficient hospital center in the District of Columbia."

Under the terms of this legislation, hospitals could participate in the Fund authorization of $35,000,000 by transferring their hospital property to the Government and uniting to form a hospital center. Also, under the terms of this legislation, 50 per cent of the cost of constructing a center would be assumed by the Federal Government; the other 50 per cent would be charged to the District of Columbia, to be paid back to the Federal Government at such times and in such amounts without interest as the Congress should hereafter determine. Again this clause in the Act emphasizes that the Washington Hospital Center is a community hospital—YOUR hospital.

Several hospitals were canvassed as to their desire to participate in this hospital center, but finally the 3 hospitals mentioned above, Emergency, Garfield, and Episcopal, united and received an appropriation of $21,700,000 to complete the Center. This amount was subsequently increased by $1,710,000, making a total appropriation of $23,410,000 available for the construction and equipping of the Center.

The original site considered was the Naval Observatory location on Massachusetts Avenue. When it was found that several million dollars would be required for the Navy to acquire another location

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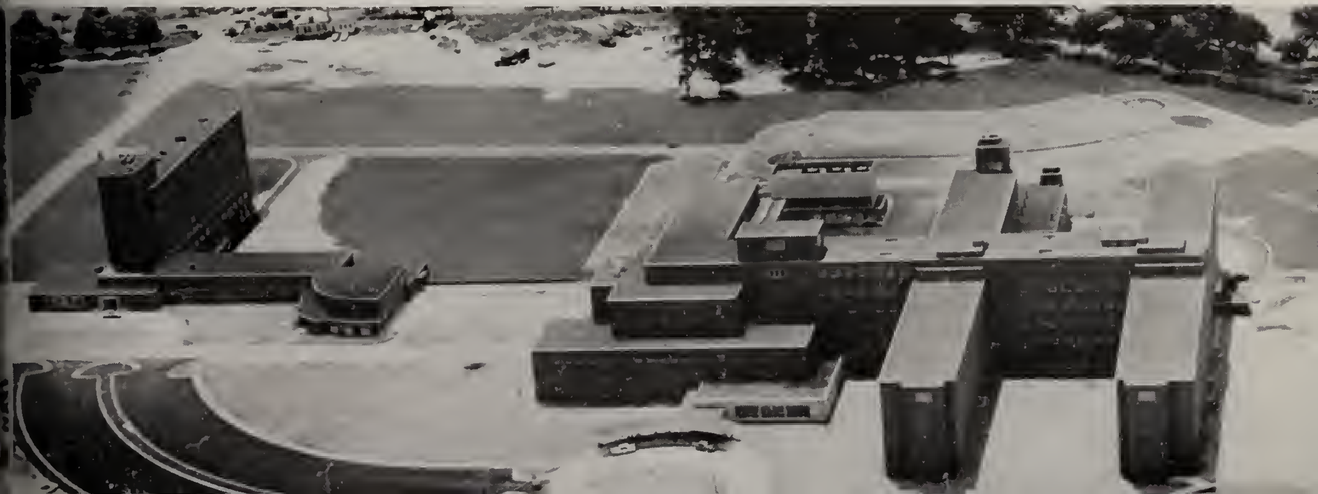
* Address delivered before the Rotary Club of Washington, D. C., November 6, 1957.

Air View of the new Washington Hospital Center



DR. BROWN ADDRESSING THE ROTARY CLUB

DR. WARWICK T. BROWN, Administrator of the Washington Hospital Center, describing the Center and some of the facilities it will provide before members of the Rotary Club, at the Mayflower Hotel, November 6. His address appears in this issue of the ANNALS.

for its Observatory, this site was abandoned and the Soldiers Home location was selected.

The planning phase for the Washington Hospital Center began on July 18, 1952, when the doctors of the 3 hospitals met and elected committees representing all of the specialties in the 3 hospitals. A Chairman and Executive Council of this Medical Planning Committee was selected and the various specialty committes were requested to submit plans for their departments. The development of plans and construction of the hospital by the terms of the Act were under the supervision of the Administrator of the General Services Administration of the Federal Government and, more specifically, under the Public Buildings Service of that Administration. The various specialty committees submitted their plans to the Chairman and Executive Council of the Medical Planning Committee and this Council coördinated and revised the plans with the coöperation of the specialty committees in order to keep the requirements of the several departments within the bounds of the space and money allocated for the Center.

These preliminary plans were then submitted to the Public Buildings Service where sketches of the medical areas were developed under the supervision of Mr. Neill P. Thompson, Chief of the Hospital Design Section of the Public Buildings Service. These preliminary sketches were then reviewed with the specialty committees in the office of Mr. Thompson with the participation of the Executive Council of the Medical Planning Committee before further and more definite plans were developed. In this way the spaces and design of each medical activity were developed by the doctors who were going to practice their profession in the areas. This is believed to be an original approach to the construction of a hospital of this size and we think it has produced a highly functional type of hospital.

The architectural phase for the Center ended in November of 1954 when the contract was let for the construction. While the construction phase was progressing the equipment phase of the project was inaugurated. Again the Medical Planning Committee met with the medical specialty committees and selected the equipment needed for the many medical areas of the hospital.

Drawings known as Equipment and Furniture drawings were developed for each room of the hospital. These drawings show the location of each piece of equipment and furniture for the many rooms in the hospital. Each article of equipment and furniture shown in the drawing was given an item number followed by a description of the item and a catalog numer indicating where the item could be purchased. A recapitulation of these drawings is being used in fitting out and distributing the many thousands of articles of equipment in the designated rooms. Each package and article of equipment that is shipped to the hospital bears the item number shown on the Equipment and Furniture drawings and this greatly facilitates the distribution of the furnishings as they arrive.

The site of the hospital is on 46 acres of land, and the hospital will have a street number of 110 Irving Street, N.W. This street is now being constructed through the Soldiers Home grounds. The Nursing School will have the number of 100 Irving Street.

The hospital will contain 800 patient beds and will be completely air-conditioned. Some interesting features of space utilization developed when it was decided to air-condition the building. Two enormous space consumers in a modern hospital are the X-ray and Clinical Laboratories. With the use of the forced ventilation of air-conditioning it was possible to locate these areas undergound with construction extending in a solid block between the wings of the building. This underground location of the X-ray machines greatly simplified the problem of shielding against radiation.

The hospital will contain 2,016 rooms; it has a gross area of 788,000 square feet and a volume of approximately 10 million cubic feet. It is planned for medical and surgical cases, maternity cases, and cases of short-term mental illness. The hospital will not have a pediatric department, except for the newborn, as in this city Children's Hospital is adequate in size for the entire area. It has a completely equipped Emergency Department and an Outpatient Department designed to treat 400 patients per day. It has a parking space for over 1,000 cars.

School of Nursing

Built in connection with the hospital is a School of Nursing to train a maximum of 300 student nurses at one time. Although the operation of a School for Nurses represents a deficit operation, the Board of Trustees felt that the great need for nurses in the community made it necessary that a School of Nursing be provided in conjunction with the Hospital Center.

A rather unusual situation exists in regard to the education of nurses. Although there is a well recognized and well publicized shortage of nurses in this country, endowment money for nurses' training is almost nonexistent, and the expense of training a large proportion of the nurses graduated is a hospital expense, which means that the patient in the hospital has a proportion of this cost added to his daily bill. This is not a fair method of financing the education of nurses.

Additional teaching programs connected with the Center provide for the instruction of interns and residents. There will be 30 interns and approximately 100 residents.

Other teaching programs planned for the Hospital Center are schools for laboratory technicians, X-ray technicians, and practical training for medical secretaries in conjunction with the School for Medical Secretaries located at Hagerstown, Maryland.

Special Features

The Center will use modern methods for accounting and recording medical statistics. The major part of these operations will be on punch cards by utilization of tabulating machines. This system is being developed under the auspices of the accounting firm that installed a similar system in the merger of the Presbyterian and St. Luke's Hospitals in Chicago. With this system it is possible to develop certain types of medical statistics as a by-product of the accounting system. As the punch card is made for each procedure in the clinical laboratory and in the X-ray Department, primarily for the purpose of accounting, secondarily the punch card also records the laboratory procedure done and the type of film made by the X-ray Department, and thus daily a medical analysis of the work done in these departments is obtained.

In the admission of patients, other machine methods are used. Information regarding the patient is typed on machines known as flexo-writers. This information is recorded remotely on a tape, which activates another machine which develops an aluminum printing plate, which is used in printing the card for the master patient files and for the patients' census. The plate is also used on the nursing floors in stamping the various laboratory requisitions and chart forms needed to record details in the care of the patient.

The patient areas are on 5 floors of 40 beds each in 4 wings of the Hospital, making a total of 800 beds. Each of the patient floors consists of 14 semi-private rooms, each with 2 beds, and 12 private rooms. An interesting feature is an intercom set between the nurses' station and the patient's room where, on signal, the patient may communicate with the nursing station and the nurse with the patient.

Another novel feature is a new type of bed in the patients' rooms. These beds are electrically operated by the nurse. They are elevated in a few seconds to the height of a hospital bed for the greater ease of the nurse in caring for the patient. On her departure, by the flick of a switch, the bed is lowered to the height of the ordinary bed as in our homes. Each bed is fitted with siderails extending over the upper half of the bed to prevent an unconscious patient from falling out of bed, but allowing a conscious patient greater ease and safety in getting out of bed if he so desires. These beds, we believe, will contribute greatly to the convenience and safety of patient care in the hospital.

Designed to facilitate patient care is the Central Sterilizing and Supply Suite. In this area all of the sterile goods, packs and trays for the entire hospital will be prepared. Also all of the supplies except drugs needed in patient care will be centralized. The sterile goods needed in the various operating rooms will be delivered from this point and the automatic supplies for patient care will be delivered to the nursing floors and various departments of the hospital where these supplies are needed. This will prevent the necessity for the nurses making trips to various areas in the hospital to obtain the equipment and materials needed to care for the patient, and will allow her more time for her nursing duties. Also centered in this area will be the orthopedic appliances, oxygen apparatus, and fluid therapy. We believe that this delivery and pick-up service, operated from this central area to the various patient care areas in the hospital, will greatly facilitate patient care.

The Dietary Department in a hospital of this size is a very large feeding operation, not only for 800 patients, many of whom will require specially prescribed diets, but also for the employees and visitors to the hospital. The hospital will operate a large main cafeteria, with a private dining room for luncheon medical meetings and an employees' cafeteria, and also a coffee shop and soda fountain adjacent to the main hospital lobby.

One of the more important production operations in a hospital is the Laundry. There is a never-ending demand for clean bed linen, linen for the operating rooms, the Outpatient Department, the Maternity Section, and the various uniforms worn by the hospital personnel, nurses, doctors, dietary personnel, maids and aides in various categories. The laundry is equipped with modern, high-speed machines which are as nearly automatic in their operation as it is possible to devise. The operation of the laundry is a high-speed production job.

There are 2 essential professional departments in every hospital. These are the X-ray Department and the Clinical Laboratory. These departments furnish the essential day-to-day diagnostic studies required in patient care. In both of these departments new procedures are constantly being added in response to more thorough and complete patient diagnosis and treatment. In the X-ray Department, in addition to the standard diagnostic and therapeutic X-ray machines, there is a 2-million volt deep therapy machine, one of the largest of its type in the area.

In conjunction with the X-ray Department is a Radioisotope Laboratory built for handling radium and radioisotopes with safety and containing the necessary apparatus for the diagnostic and therapeutic monitoring of radioisotopes. These substances, of comparatively recent origin, offer a promising and constantly developing field in the diagnoses and treatment of many diseases.

The Clinical Laboratory in the Washington Hospital Center has areas devoted to the routine laboratory procedures, such as hematology, serology, pathologic anatomy, and chemistry. It also contains a virology laboratory as more and more attention is being devoted to the study of viruses as the cause of disease. There is also an area for biological research. In addition, the laboratory contains a fully equipped Blood Bank.

The Maternity Section of the hospital has facilities for 103 patients. It has 10 labor rooms, 4 delivery rooms, 1 special operating room for cesarean sections, and an obstetric reacting room. Also in conjunction with the Maternity Section is a nursery for prematurely-born infants, a suspect nursery for isolation, and, most important of all, a waiting room for expectant fathers.

The communications system in a hospital of this size is rather complex. In addition to the telephones throughout the hospital, including a telephone in each patient room, there is a regular paging system for doctors and a special paging system in the main lobby by which ambulatory patients waiting admission may be called to 1 of the 3 admitting offices.

(*Continued on page 56*)

A GUIDE FOR PRACTICE, MEDICO-LEGAL RELATIONS FOR THE DISTRICT OF COLUMBIA

Preamble

In recognition of the fact that the practices of law and medicine do frequently embrace matters pertaining to both professions, and in further recognition that in such cases coöperation between attorneys and physicians is mutually desirable and beneficial, and that such coöperation is in the public interest:

We, the members of the District of Columbia Bar Association and the Medical Society of the District of Columbia, do adopt and recommend the following declaration of principles as standards of proper conduct for lawyers, physicians, and others concerned, subject always to rules of law and standard of legal and medical ethics prescribed for their individual conduct.

I. Obligations of Physicians in Medico-legal Cases

A. Medical Reports

1. Any physician who accepts and treats a patient for an injury resulting from an accident involving possible liability, with knowledge of the possible medico-legal implications, is responsible for providing such patient with the necessary medical reports or evidence to assist that patient in recovering for his damages. If he does not wish to provide his patient with such reports or evidence, then he immediately should make this known to the patient and refuse the initial treatment and refer the patient to another physician. This will avoid later embarrassment or involuntary testimony by subpoena.

2. Medical information should be furnished an attorney only upon proper authorization from the patient and a written request from the attorney. Where the report is requested by someone other than the patient or his attorney, the doctor should insist upon proper authorization from the patient before giving the information.

3. The report should include the history, report of physical examination, laboratory and X-ray examinations, diagnosis, and prognosis if requested.

The attorney should specify in his written request any specific information or opinion desired. Medical reports should be concise but should contain sufficient information to enable the attorney to properly evaluate the extent of his client's injuries. The question of permanency and resultant disability should be clearly defined. Such reports should be furnished promptly upon request.

B. Medical Examination for the Defendant

1. An examination of a plaintiff made by a physician for the defense should be with the consent of the plaintiff's attorney, and the treating physician should be advised *before* said examination.

2. The physician's inquiries should be limited to medical aspects of the case and should not involve the question of liability. He does, however, have the right to inquire into the medical history of the patient, in so far as required to conduct a full and complete examination as it bears on the condition in issue.

3. Sufficient copies of his medical report should be forwarded so that one will be available for the plaintiff's attorney and the treating physician.

C. Authorization and Assignment Forms

1. An authorization is necessary to protect the physician in sending medical reports, and an assignment to the doctor of his reasonable fee to be paid out of the recovery should be recognized. This does not relieve the patient of his primary responsibility of payment of a reasonable bill in the event of failure to recover any damages in his litigation.

In cases where an assignment is pending and where investigation has demonstrated absence of liability, or where the case has been closed for other reasons, the attorney should promptly notify all physicians involved that the assignment for their medical fee is no longer of value.

2. A suggested form of such authorization and assignment is shown on the following page.

D. Medical Testimony

1. The relation between a lawyer and doctor shall be based upon courtesy and understanding and candor. Medical testimony is essential either to prove or disprove injury and its extent. The physician's written report is legally insufficient and cannot be utilized in trial without the personal appearance or deposition of the physician. It should also be understood that depositions are inadmissible when the physician is available for trial.

ASSIGNMENT AND AUTHORIZATION

This is to authorize and direct my attorney,
....Esq., or
..................................Insurance Company,
to receive medical reports, and to pay................M.D.,
Washington, D. C., the sum of..................(if known)
or a fair and reasonable charge for professional services
rendered to..
(name of patient)
said payment to be made from any monies due me as a result of recovery on my claim because of injuries received by
...................on or about...................19...
Payment of this amount as herein directed, in whole or part, shall be the same as if paid by me. It is further agreed that nothing herein contained relieves me of the primary responsibility and obligation of paying my physician,
................................, his fee for the medical services rendered in this matter.

Name: ______________________ (Seal)
Address: ______________________
Witness: ______________________
Date: ______________________

I accept the above assignment.

____
Attorney for: ______________________
Date: ______________________

2. It is suggested that a conference be held between the doctor and the lawyer intending to call him as a witness at some mutually convenient time before the doctor is to testify. Generally, no doctor should be called to testify in any case without prior conference with the lawyer calling him concerning the matters about which he is to be interrogated, unless both the doctor and lawyer agree that such conference is unnecessary.

3. It is recognized that the dispatch of the business of the courts cannot depend upon the convenience of the individual doctors who are to be called to testify. In so far as possible, lawyers should make advance arrangements for the attendance of doctors as witnesses and will have due regard for the professional demands upon the doctor's time by calling the doctor after the trial has commenced and advising him of the approximate time when he will be expected to testify. Such coöperation can avoid prolonged periods of waiting at the courtroom, which may occur when appearance is by subpoena alone.

4. The physician is legally required to furnish such testimony or evidence to the extent as determined by court, usually involving diagnosis, treatment, and prognosis. He may be subpoenaed into court without his consent to testify into such particulars of the case as the court may direct. In cases involving trial in another jurisdiction, this testimony may be in the form of subpoenaed deposition.

5. The physician should have a dignified demeanor in court and should avoid undue criticism of other physicians. He should endeavor to use lay language and explain technical terms, and may employ diagrams, mannequins, X-rays, etc. to demonstrate certain points which would otherwise be obscure to the court and jury.

6. The physician may look for guidance from the court if in doubt as to the method of answering any particular question.

E. Medical Fees

1. The fees should be in accordance with the prevailing practice in this community. The physician may make a reasonable charge for any time required for conferences with attorneys, preparation of reports, review of records in hospitals, review and report of X-rays, etc.

2. Under no circumstances should a physician's fees be contingent upon successful, or the amount of, recovery. The patient is primarily responsible for the bill; however, if the patient's economic position so warrants, the physician may elect to wait until the case is disposed of for collection of his fees. In certain cases the physician may elect to reduce or cancel his fee, when it is warranted by the circumstances.

3. When a doctor is called to testify as a witness for his patient, the charge, if any to be made to such patient, shall be established by agreement. It is recognized that testimony out of this jurisdiction may require additional time and absence of physician from his practice, and may warrant additional compensation.

4. When a doctor is called to testify not as a treating physician but solely as an expert witness, he shall be paid such fee as may be agreed upon with the party or his lawyer. Nothing herein is intended to alter the rules of law with reference to attendance of witnesses and fees for their attendance, nor the law with reference to privilege.

II. OBLIGATION OF ATTORNEYS

A. Medical Reports

1. When a report is requested, the lawyer should make clear in his written request for a report the

specific condition about which he seeks information.

2. The physician's testimony and report are vital to the successful disposition of a liability case. Full coöperation with the physician and consideration of his time and professional obligations will be mutually beneficial.

B. Consideration of a Physician as a Witness

The physician is seldom an ordinary witness, but is an expert witness, and should be treated accordingly. The lawyers should avoid undue personal criticism of the physician or his integrity. The doctor should be treated with courtesy and respect.

C. Assignment Forms

The attorney should attempt to protect the physician's fee by permitting his client to sign a medico-legal assignment and authorization form such as that heretofore referred to or by obtaining from the client authorization to pay the physician's fees out of any recovery. He should also acknowledge any assignment by written notice to the physician informing him of this action.

D. Physician's Testimony in Court

1. Subpoenas generally should not be issued without prior notification of the physician.

2. Wherever possible, the physician should be placed on telephone call to minimize the physician's time in court.

3. Wherever the circumstances so warrant, the patient should be reëxamined prior to testimony so that proper and final evaluation of his condition may be given in court.

4. The physician should be properly qualified as an expert. He should be asked to explain technical terms wherever possible and should be permitted to amplify his answers for clarity.

TIME AND TWO WOMEN*

Time and Two Women: 16 mm., color, sound, showing time 18 minutes. Produced in 1957 by Audio Productions, New York, for and procurable on loan from the American Cancer Society, 521 W. 57th St., New York 19, N. Y.

This film alerts women to the urgency of early detection of uterine cancer and explains the uterine cancer cell examination (the "Pap" smear). It is narrated by Dr. Joe V. Meigs of Boston, who tells the stories of two women who had cancer of the uterus: one who ignored warning signals and saw her doctor too late, and the other whose early cervical cancer was detected in the course of a periodic checkup. The growth of cancer is shown by animated diagrams; and a photomicrograph of a cervical smear, with normal and malignant cells, identifies for the viewer how the pathologist can suspect the presence of cancer by noting cells' structural abnormalities. Details of the routine examination are explained, emphasizing that the patient experiences no discomfort during the procedure. Since the second patient's laboratory report indicated the presence of abnormal cells, she returned the following day, when several small tissue specimens were removed from the cervix. These enabled the pathologist to make a positive diagnosis of cancer. After treatment, she reported for follow-up examination, including smears, for 5 years, during which she showed no further evidence of disease. The film is concluded with an appeal for women to go to their family physicians once a year for a pelvic examination even though they have no symptoms.

This film should be considered as part of a broad program of professional and public education. At each showing, a doctor should be present to answer questions from the audience; slides of key materials in the film are supplied for projection during the discussion period. At the present time there are not enough trained professional assistants for the pathologists in analyzing specimens taken for cell examination; therefore, the film should be shown only in those areas where the county medical society approves and where pathologists are prepared to read smears.

This is an excellent film, clear-cut, pertinent, concise and very illuminating. The participants perform their parts exceptionally well and the photography is excellent. It is recommended for showing to all women in those areas where facilities for cancer cell examination are available.

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* Reprinted from Medical Film Reviews: J.A.M.A., 1957, **165**, 728.

On the Lighter Side

The day of Wednesday, December 4, 1957 brought the area's heaviest snowstorm in years. By the papers it was alleged that eleven or twelve inches of the stuff fell in unashamed silence from heaven only knows where. By personal experience, the snow was so wet and heavy that it pulled down a good 10-foot section of my copper gutter from the roof and a similar section from the roof of a neighbor across the street. Also by personal experience, the snow was so persistent that one hour after I had shoveled clean the walks the blanket was just as white, just as deep, and just as damp. Therefore, the idea of going duck hunting on such a day would appear to the casual observer to be a punishment too cruel to perpetrate on one's closest enemy. But to Dr. Clyde Reeves, and I quote, " . . . everyone knows that duck hunting is best when it snows!"

"But why?" I asked in all innocence.

"The ducks are in more of a hurry to fly south when it is snowy weather," he replied in astonishment at my abysmal ignorance. "And not only that," he said somemore, "did you know that ducks will decoy better when it is snowing?" I had to admit that I did not possess that priceless knowledge.

The story, retold from his own inimitable account of it, follows.

When Dr. Clyde Reeves saw the very first flurries of snow on the evening of Tuesday, December the third, his nostrils quivered with expectancy. The duck hunting will be good tomorrow, he thought. Already he envisaged the savory duck rolling in its own juices over a crackling fire, and turning a crisp brown from the warmth of it. Dr. Reeves lost no time. He phoned all of his duck-hunting friends and implored them to accompany him to his southern Maryland hide-out for a broadside of hunting. The next morning, at 4 a.m., he was able to flush out of bed only one intrepid soul. The others had indispositions of varied and assorted kinds—some fanciful, others true. This cowardly display of negative thinking on the part of his usual hunting associates only fired up higher the courage in fearless Clyde. Off he went, at 5 a.m., with his lone companion down to the blinds.

In the snow-blurred cold gray before dawn each hunter took his boat and putputted out to his individual blind. The idea behind this thinking is that if two hunters are in one blind there may be less duck shooting and more arm raising. (It is said that if you raise up your arm enough times while in a duck blind on a cold and snowy day, you will keep warm inside but you will also see two ducks where there is actually only one. This is very disconcerting to an old-time duck hunter because chances are you will shoot between the ducks and miss both. This is the real McCoy on duck-hunting lore. No kiddin'.)

Anyway, Dr. Reeves bagged his limit of ducks by 3 p.m. and boated over to the other blind to see how his shivering, red-nosed friend was doing. He was doing not so good—only one duck all morning—so Dr. Reeves suggested to his bleary-eyed companion (from the cold, of course) that he come over to Clyde's blind since there seemed to be more ducks in that area. Good enough! They both go back and in another hour the friend had his limit of ducks. But by this time the water was getting rougher, the wind was colder and blowing harder, and the snow was piling higher in the boats; therefore, they decided to go back to the dock each in his own boat.

The trip back had hardly started before the outboard motor in Dr. Reeves' boat conked out. By the time he decided he could not get it restarted the second boat had disappeared in the impenetrable falling snow and the darkening dusk. Dr. Reeves was alone and lost on the tumultuous sea. He scanned the water and seeing nothing but snow, he did what any red-blooded American boy would do under the circumstances: He shouted and yelled, and yelled and shouted the name of his lost companion. Finally, after what seemed hours of waiting, Dr. Reeves saw the dim outline of the other boat pushing through the mist, fog and snow. Help had arrived. A few more shouts joined the hunters, and the friend gave him a tow. But by now neither one knew in which direction to go to reach the dock. It was decided to beach the boats on the nearest shoreline and hike back to camp. This they did.

When the weary hunters stepped out of the boats, in what appeared to be a virgin whiteness of undiscovered forest, they left all equipment in the boats—guns, decoys, ducks—everything was left behind, and boldly pushed on through the ever-deepening snow toward life and habitation.

After trudging for three miles through ankle-deep snow in the face of a cold and blustery wind, they came across a farm house whose lazy smoking chimney gave promise of warmth within; but the only thing the tired hunters got was free directions on how to find the nearest road to town. Another mile of walking brought them to a roadside tavern where they were able to thaw the ice from their veins and the frostbite from their fingers. From the tavern keeper they were able to get directions to find the dock and their car.

CONCLUSION: A dyed-in-the-feathers duck hunter will brave winter's most hoary blasts and deepest snow to get his quota of ducks. End of story.

FISHING NOTE: Doctors Alex Castro, Dick Fischer and Ed Wilson spent one week aboard a fishing boat off the Florida Keys after attending the Southern Medical Convention recently at Miami Beach. The fishermen trucked a box along with them from Washington and packed it full of fish for transportation home. It's a good thing there is at least one Friday in every week.

CONVENTION NOTE: Familiar faces seen and heard at the Miami Beach convention were Dr. and Mrs. Herbert Ramsey, Dr. and Mrs. George Hageage, Dr. and Mrs. Joseph Belair and daughter, Drs. Murry Robinson, Murray Copeland, Darrell Crain, and old friend and former bowling companion, Mr. Harvey Hallum from Mead Johnson.

Convention thoughts while listening to a paper: Why is it that I always get the restless, long-legged guys behind me? Every time they cross and uncross their legs I get it—but good.

GOLFING NOTE: Dr. Fred Musser was chosen as one of a foursome by Prince Georges Country Club Pro Al Houghton to play with him in the Goodwill Golfing Tournament at Bermuda recently.

CHUCKLE NOTE: When faced with two evils, most guys pick the blonde.

J. EARL KADAN, M.D.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, November 25, 1957, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

James J. Foster, 1746 K Street, N.W.
Warren C. Johnson, 2727 29th Street, N.W.
Jean Hugues Menetrez, 5231 Chevy Chase Parkway
Harold I. Passes, 10311 Montrose Avenue, Bethesda, Md.
Irvin H. Peiser, Jr., 1835 Eye Street, N.W.
Homer L. Twigg, Jr., Georgetown University Hospital

Associate Members

Panayiota A. Athanasiadou, 4223 1st Street, S.E.
Robert G. Brewer, 8218 Wisconsin Avenue, Bethesda, Md.
John A. Logan, P.O. Box 270, New London, N. H.
William C. Loh, Glenn Dale Hospital, Glenn Dale, Md.

Resident-Intern Members

David G. Dixon, 1129 New Hampshire Avenue, N.W.
Alden W. Seleman, 2715 Pennsylvania Avenue, S.E.

The following applicants for membership will be voted on at the meeting of the Executive Board, February 24, 1958.

For Active Membership

Chalom A. Albert, American University of Beirut (Lebanon)—1953
Claude R. Ball, University of Maryland—1927
Brooke A. Beyer, Georgetown University—1953
Frances E. Brennecke, Rush Medical College—1936
John M. Cox, College of Medical Evangelists—1943
James F. O'Rourke, Georgetown University—1949
Henry Shields Robinson, Jr., Howard University—1930
Roger L. Shapiro, University of Chicago—1949
Robert J. Sherman, Tufts Medical School—1938
Moe Weiss, New York University—1936
Paul W. Yost, Washington University—1949

For Associate Membership

Antonio P. Canadas, Ecuadorian Central University—1952
Frank J. Schaffer, Middlesex University—1941
Glenn P. Speidel, State University of Iowa—1927
Azad J. Vosger, American University of Beirut (Lebanon)—1946
Miroslava Marie Vozenilek, University of Lausanne (Switzerland)—1949
Lilu Yuen, St. John's University (Shanghai)—1947

For Resident-Intern Membership

J. William Stohlman, Georgetown University—1953

Recent changes in membership status:

Active to Associate

Roland E. Bieren	C. Janet Hill
Roger S. Cohen	Leon A. Martel, Jr.
William A. Eddy	John T. Murray, Jr.

Resident-Intern to Associate

Herbert E. Lane, Jr.

Resigned

Active

Maurice B. Wehr

Two New Life Members

Chapter II, Article IV, of the Constitution of the Society, reads as follows:

> Life members shall be active members who have been active members for a total of forty years. They shall have all of the privileges of active membership, and shall be exempt from paying dues and assessments.

Our honor roll now numbers 60. The congratulations of the Society are extended to:

Seniority Number		*Date of Membership*
708	Richard Lee Silvester	April 15, 1918
713	A. Magruder MacDonald	October 1, 1918

who have for forty years been on the roster, meeting all dues and assessments and lending their support to the Society by frequent attendance. Their status is now elevated to Life membership.

CORRESPONDENCE

SILVER SPRING, MD., November 2, 1957

TO THE EDITOR:

I believe you might be interested in the information that traces of antibiotics are present in influenza vaccines without any package information or label to indicate that such is the case. This can be important to allergic individuals, some of whom are exquisitely sensitive. I have seen a penicillin-sensitive patient develop her typical exanthematous penicillin rash following the intracutaneous injection of 0.1 ml. of Lederle's Asian strain influenza vaccine. In this instance the syringe had never been used for penicillin and was dry autoclaved. Upon inquiry, Lederle very kindly responded as follows: "In regard to penicillin, small amounts are used in the production of the vaccine. In the process of centrifuging, it is believed that most of the penicillin is eliminated; however, some probably remains." It was impossible to trace the lot of vaccine received by this patient, but a sample of Lederle's Asian strain influenza vaccine was submitted to the Antibiotics Division of the Pure Food and Drug Administration for penicillin assay. They were unable to detect penicillin in this sample to a sensitivity of approximately 0.03 units/ml. The presence of merthiolate interfered somewhat with their testing.

Dr. Henry Welch of the Antibiotics Division tells me that Lederle and Lilly use penicillin in their virus seeding process, Sharp & Dohme uses streptomycin, and no antibiotic is used by National Drug and Pitman-Moore companies. Supplemental information from the National Institutes of Health adds that the Parke, Davis Company uses both penicillin and streptomycin.

It is pertinent to stress that extremely small amounts of penicillin are capable of provoking symptoms in certain patients. I have been told of 3 cases of shock developing in penicillin-sensitive patients within minutes of the injection of Asian influenza vaccine. The patients all happened to receive brands which did not contain penicillin, and the shock presumably resulted from the contamination of the syringes used with penicillin. M. Coleman and B. Siegel (J. Allergy, 1955, **26,** 253) have reported the presence of active penicillin allergen in sterilizer water, and in glass syringes used to hold penicillin, then washed 3 times and boiled for 15 minutes. These allergists conclude that patients known to be sensitive to penicillin "should not receive any type of injection unless it is certain that the syringe which is being used had not been contaminated with penicillin."

Physicians generally should be informed that penicillin and/or other antibiotics may be present in some lots of vaccine without package warning to this effect and should be reminded that the extreme degree of sensitivity of some penicillin-allergic patients requires extraordinary precautions even in the selection and sterilization of syringes and needles.

It is to be earnestly hoped that package information on all products intended for injection will be expanded to include a note on the presence of any and all allergens present.

Yours truly,
ELOISE W. KAILIN, M.D.

News and Personals

JUN 12 1962
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MEETINGS

The Section on Ophthalmology of the District Medical Society will hold its third dinner meeting of the year at the Kennedy-Warren, February 11. V. Everett Kinsey, Ph.D., of the Kresge Eye Institute, Detroit, Michigan, will be the guest speaker. His subject will be "Current Concepts of the Physiology of Aqueous Humor and Their Implication with Regard to Glaucoma."

The Second Annual Aaron Brown Lecture of the Beta Xi Chapter of Phi Delta Epsilon Fraternity will be held in Room 101 at the Georgetown University School of Medicine, 11:00 a.m., Saturday, February 15. The guest speaker will be Homer W. Smith, Sc.D., Professor of Physiology and Chairman of the Department of Physiology at New York University-Bellevue Medical Center; he will speak on the subject, "Reabsorption of Sodium and Water by the Renal Tubules." All members of the Medical Society of the District of Columbia are invited to hear this lecture.

The Washington Psychiatric Society and the St. Elizabeths Hospital Medical Society will hold a joint meeting in the Medical Society's building, February 28. The program will feature a panel discussion on the pros and cons of the use of tranquilizing drugs.

The Washington, D. C. Chapter of the National Cystic Fibrosis Research Foundation invites members of the District Medical Society to attend a meeting on Sunday, February 2, when the speaker will be Dr. Wynne Sharples, of Philadelphia, President of the National Foundation. Dr. Sharples will discuss new advances in therapy and review the progress of the Foundation's research and organizational program. The meeting will be held in the auditorium of the Washington Post and Times-Herald Building, beginning at 2:30 p.m.

Members of the Medical Society who plan to attend the **Fifth International Congress of Internal Medicine,** to be held in Philadelphia, April 23–26, 1958, are asked to secure a registration form and send it in to the Office of the Secretary-General before February 1, 1958. Registration forms and general information regarding the Congress may be secured from Mr. Edward R. Loveland, Secretary-General, 4200 Pine Street, Philadelphia 4, Pa.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia held its regular meeting on November 25, 1957.

Dr. C. K. Fraser, Chairman of the Obstetrical Board, submitted for membership on the Board the name of Dr. Robert H. Barter, Executive Officer of the Department of Obstetrics and Gynecology of George Washington University School of Medicine, to succeed Dean John L. Parks, who had submitted his resignation. Dr. Fraser also submitted for associate membership on the Board the names of Dr. George E. Stevens, of Georgetown University Hospital, to succeed Dr. Stafford W. Hawken, and Dr. Alan Winshel, of D. C. General Hospital, to succeed Dr. James H. Nelson. The Board approved these changes in the personnel of the Obstetrical Board and commended Dean Parks and Dr. Hawken for their fine service as Board members. The Executive Board was assured by Dr. Fraser that their keen interest in obstetric matters would not terminate with their resignation from the Obstetrical Board.

The Board voted to recommend to the Society

DR. CAULK AT DEDICATION CEREMONIES

DR. RALPH M. CAULK, President of the Medical Staff of the Washington Hospital Center, taking part in the dedicatory ceremonies at the Center, December 1.

the election to Honorary membership of Mr. Paul Foley, Deputy Director of the Department of Occupations and Professions and Assistant Secretary of the Commission on Licensure of the District of Columbia.

The Secretary informed the Board that he had been notified by Mr. Foley that Dr. Daniel L. Borden, long-time Chairman of the Board of Examiners in Medicine and Osteopathy, had submitted his resignation and that recommendations for a successor were requested. The Board decided that names to be submitted be left to the discretion of the President of the Society and the Chairman of the Executive Board.

Dr. Robert E. Moran was selected by the President, with the approval of President-elect Dunn, to serve as General Chairman for the Medical Society's 27th ANNUAL SCIENTIFIC ASSEMBLY; the Board approved the choice.

Dr. William R. Strong was appointed by President Watts, and confirmed by the Board, to represent the Society at conferences having to do with the development and expansion of tissue banks for the District of Columbia.

Dr. C. Willard Camalier, Jr., was asked to represent the Medical Society at a meeting of the AMA's Council on Medical Service, to be held in Philadelphia, December 6.

The new **Washington Hospital Center** was formally dedicated, December 1, 1957, at afternoon ceremonies in the auditorium of the School of Nursing. The Honorable Samuel Spencer, Executve Vice President of the Center's Board, presided. The principal speaker was the Honorable Charles S. Dewey, first President of the Center. Mr. Edward K. Mills, Jr., Deputy Administrator of the General Services Administration, presented Mr. Dewey with a large gold key, symbolizing transfer of ownership.

Dr. Ralph M. Caulk, President of the Medical Staff, addressed the guests present, and a brief talk was made by Mrs. C. Ashmead Fuller, President of the Women's Division of the Center. The Right Reverend Angus Dun, President of Episcopal Hospital, delivered the invocation.

Because of the relatively small size of the auditorium, attendance was limited to members of the Board of Directors of the Center and the three merging hospitals, Central Dispensary and Emergency, Garfield Memorial, and Episcopal, Eye, Ear and Throat. Members of the medical staffs and administrative heads were present, also members of the women's boards of the various hospitals, and a number of Government and District of Columbia health officials. Following the dedication, the guests were taken on a tour of the new Center.

The Bureau of Old-Age and Survivors Insurance, Social Security Administration, has announced vacancies for **full- and part-time medical consultants** in its Division of Disability Operations. These positions are available in the headquarters offices in Baltimore, Maryland. The full-time positions are under Civil Service and incumbents will receive all Civil Service benefits. The salary range is from $10,065 to $11,395 a year, depending on the individual's qualifications.

An article describing in greater detail the basic medical aspects of disability insurance operations under the Social Security Act may be found in the January 15, 1955, issue of the *Journal of the American Medical Association*, pages 270 and 271.

Physicians interested in either full- or part-time positions should write to Dr. Arthur B. Price, Chief Medical Consultant, Division of Disability Operations, 200 West Baltimore Street, Baltimore 1, Maryland.

The National Security Agency is seeking a **part-time physician** for their offices at Ft. Meade, Maryland, to help in their employee health program. The number of hours and the days on which the physician will work will be decided between NSA's Medical Director and the physician. The doctor will be paid on an hourly rate based on an annual salary of $11,395. Communications should be addressed to Mr. C. H. Penland, Office of Personnel Services, National Security Agency, Washington 25, D. C.; telephone Liberty 5-6700, Ext. 67246.

Fifteen faculty members of George Washington University have been given grants, totaling $165,607, for medical research by the National Institutes of Health. Among the recipients are the following members of the Medical Society, the amount of the grant, and the subject of their research: Dr. Brian B. Blades, $25,432, restoration of blood vessels; Dr. Edward Adelson, $13,052, hypercoagulable state in humans and animals; Dr. Marshall H. Jacobson, $10,627, renal biopsy in chronic pyelonephritis; Dr. Charles D. Cooper, $6,750, activity of leukocytes in lupus erythematosis; and Dr. Joseph W. Still, $2,300, washout rates of amino acids in tissues of mice.

Dr. Francis M. Forster, Dean of Medicine at Georgetown University School of Medicine, will be the principal investigator in a study to improve methods of testing sensory loss and developing rehabilitation technics for brain-injured patients with sensory defects. A grant in the amount of $11,323.65 is being provided by the National Society for Crippled Children and Adults.

Children's Hospital has been awarded a grant of $8,000 by the National Institutes of Health for each of two years to be used for the investigation of hemoglobin of the blood in various anemias. The work will be conducted by Dr. Sanford Leikin and Mr. James W. McCoo, Jr., of the Blood Research Laboratory.

QT Washington, Inc., a lay organization, was formed recently in the Washington Metropolitan Area to serve ileostomy patients by means of monthly meetings, visiting services, bulletin, and the pooling and exchange of practical and technical information. Membership is limited to ileostomy patients, but is nonsegregated, nonsectarian and nonprofit. Meetings are being held on the third Sunday of each month at 2 p.m. at the Guy Mason Center, Calvert Street and Wisconsin Avenue, N.W. Physicians may wish to bring this organization to the attention of any ileostomy patients that they think would benefit by membership in it. The Secretary of QT Washington is Miss Hilda Kushner, 7439 Ninth Street, N.W., Washington 12, D.C., telephone Taylor 9-3382.

The Fred Repetti Memorial Wing, to be used as a nurses' recreation room at the Washington Home for Incurables, was dedicated, October 31, 1957. Dr. Aims C. McGuinness, of the Department of Health, Education and Welfare, an Associate member of the District Medical Society, gave the dedicatory address.

Dr. Repetti, who died in 1945, left his estate to the home, to be used for a wing or an addition, after a lifetime trust for his wife, who died in 1955. Before his death, Dr. Repetti was an Active member of the District Medical Society.

Miss Louise Moser, Assistant Director of the new Washington Hospital Center School of Nursing, has been elected **President of the Graduate Nurses' Association of the District of Columbia.** Miss Moser was Assistant Director of the Garfield Hospital School of Nursing until it moved to the Center last September.

Emergency Hospital was recipient of the Second Annual Award of the District Chapter of the American Red Cross for participation in the blood donation program.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
November 3	Dr. Christopher T. Bever	The Early Grammar School Years	Woodside Elementary P.T.A., Silver Spring, Md.
November 12	Dr. Joseph E. Rankin	Some Conscious and Unconscious Factors that Influence Human Behavior	Joint meeting, District Chapters, American Physical Therapy and Occupational Therapy Associations
November 17	Dr. John R. Cavanagh	The Emotional Problems of School Children	Home and School Association, Shrine of the Blessed Sacrament School
November 19	Dr. Julius Schreiber	Modern Woman and Her Emotional Fulfillment	Fairfax County League of Women Voters
November 21	Dr. Marvin E. Perkins	Mental Health and Illness: A Public Issue	D. C. Quota Club
December 3	Dr. George Maksim	Juvenile Sports	Chillum Elementary School P.T.A., Hyattsville, Md.
December 4	Dr. Ernest A. Gould Dr. Lois I. Platt	The Cancer Problem Today Discussion of film, "Time and Two Women"	Volunteer Training Session, D. C. Division, American Cancer Society
December 5	Dr. John Harry King, Jr.	Sight Restoration and Eye Banks	Annual Meeting, Society for Prevention of Blindness
December 8	Dr. Elizabeth S. Kahler Dr. Dorothy S. Jaeger-Lee	Westinghouse Series, "Growing Pains"	Radio Station KDKA
December 9	Dr. Allan B. Coleman	Accidents, Unpunished Killers of Children	Shepherd Park Lyons Club
December 10	Dr. Ernest A. Gould Dr. Paul B. Cornely	The Cancer Problem Today The American Cancer Society Serves the Cancer Patient	Symposium for social workers, D. C. Division, American Cancer Society
December 11	Dr. Donald Stubbs	Washington Blue Shield Program	Public Health Committee, Washington Board of Trade

PERSONALS

Dr. Harry Lee Claud was elected Vice Chairman of the Council of the Southern Medical Association, which elected new officers following the Annual Scientific Meeting of the Association in Miami Beach, Florida, November 11–14. Dr. W. Kelly West, of Oklahoma City, Oklahoma, was installed as President, succeeding Dr. J. P. Culpepper, Jr., of Hattiesburg, Mississippi; Dr. Milford O. Rouse, of Dallas, Texas, is the new President-elect of the Southern Medical.

Dr. Raymond T. Holden was one of 16 physicians in the United States invited to participate in a series of conferences sponsored by the Department of Health, Education, and Welfare in Washington, D.C., November 21–22. The topic which Dr. Holden was asked to discuss was "The Role of Doctors in Adoption."

Dr. Darrell C. Crain, Director of the Rheumatology Clinic at Georgetown University Hospital, was awarded, in behalf of the Clinic, a fifth medical prize for the exhibit entitled, "The Hands in Arthritis and Related Diseases," at the November meeting of the Southern Medical Association in Miami Beach, Florida. This exhibit has received two awards from the American Medical Association, another from the Medical Society of the District of Columbia during its ANNUAL SCIENTIFIC ASSEMBLY, and a fourth from the Virginia State Medical Society.

Dr. Milton L. Goldman was one of 17 Washington area artists to be awarded membership in the Corcoran Gallery of Art Association in recognition of his winning entry in the Corcoran Gallery's 12th Annual Area Exhibition. Dr. Goldman received recognition for his water-color painting.

Dr. Robert C. Hecker, who holds a reserve assignment as flight surgeon with the 459th Tactical Hospital, 459th Troop Carrier Wing, Andrews Air Force Base, was sent abroad on a special 2-week tour of active duty with the United States Air Force Reserve in November. With five other reserve officers from various sections of the United States, Colonel Hecker visited bases in Germany, France and England. He was a member of the 36th group of reserve officers assigned to inspect European bases in order to keep key reserve personnel informed on the Air Force's global operations.

Dr. Hecker received his original reserve commission in 1938 and was surgeon with the Eighth Air Force in England during World War II.

The following members of the Medical Society of D. C. were named **Fellows of the American College of Physicians** at the November meeting of the Board of Regents in Philadelphia: Drs. Harry A. Horstman, Jr., Francis J. Murray, and Elbert T. Phelps.

The following members of the Medical Society were elected to Associate fellowship in the College: Drs. Marvin Fuchs, Margaret Elizabeth Grigsby, and Robert T. Kelley. Physicians must serve a minimum term of three years as Associates before they can qualify for full fellowship in the College.

Dr. Robert H. Detwiler, an Associate member of the District Medical Society, was appointed by the Arlington County Board to serve on its school board for an interim term ending December 31. The appointment followed the resignation of school board member E. R. Draheim.

Dr. Donald R. Sickler, who has served as Chief of the Tuberculosis Control Division of the D. C. Health Department since 1954, resigned his position, effective January 15, to return to private practice.

WILLIAM BERRY MARBURY, M.D., F.A.C.S.

(1885–1957)

Dr. William B. Marbury, Washington surgeon for more than 30 years, died suddenly in Farmington, New Mexico, October 30, 1957. Dr. Marbury moved to Farmington in 1950 and opened a clinic there with his son, Dr. William B. Marbury, Jr.

Dr. Marbury was born at Mattaponi, near Croome in Prince Georges County, Maryland, to Fendall Marbury, Jr. and Lucy Berry Marbury. He graduated from Episcopal High School in Alexandria, Va. He enrolled for medical training at the University of Virginia, graduating in 1909. He interned the following year at Union Memorial Hospital in Baltimore, and in 1910–11 took postgraduate study in surgery at the University of Maryland. This was followed by a two-year residency in surgery at Providence Hospital, Washington.

Dr. Marbury began private practice in Washington in 1914. With the advent of World War I, he joined the British Expeditionary Force and served for a year in France. He later was transferred to the American Expeditionary Force and was discharged as Captain with the Croix de Guerre decoration.

For many years he maintained offices at 1015 Sixteenth Street, N.W., now the site of the Hotel Statler, and later at his residence at 2238 Que Street, N.W.

From 1920 to 1930 he was Attending Surgeon at Providence Hospital and for many more years he was Associate Attending Surgeon at Children's Hospital and Attending Surgeon at Emergency Hospital. He had also served as president of the medical and surgical staff of Emergency. He was formerly Clinical Professor of Surgery at George Washington University and a former surgeon of the Police and Fire Board.

Dr. Marbury was a diplomate of the American Board of Surgery, a Fellow of the American College of Surgeons, and a member of the American Medical Association, the Southern Surgical Society, and the Clinico-Pathological Society of the District of Columbia. He was an Active member of the Medical Society of the District of Columbia from 1916 until 1953. He had also been a member of the Chevy Chase Club and the Farmington Country Club of Charlottesville, Virginia. He had contributed a number of scientific articles to medical journals in the field of surgery.

He is survived by his wife, Mrs. Margarita von L. Marbury, and his son, of Farmington, N. M., and a daughter, Mrs. Montague Blundon, of Sewickley, Pa. His brother, Judge Charles C. Marbury, of Upper Marlboro, Md. is circuit judge of the Maryland Seventh Judicial District.

Washington Hospital Center—Brown

(*Continued from page 44*)

I have already mentioned the special intercom between each patient and the floor nursing station. There is also an intercom from each operating room to the nurses' control desk in the main operating room suite and 1 from the control desk in the Emergency Section to the various rooms in the Section. Because of the large size of the hospital a radio paging system will be used after the regular audio-paging system is secured for the night. By this means house doctors and key maintenance personnel may be given messages regardless of their location in the house or even on the hospital grounds. Supplementing the other means of communication, a pneumatic tube system will deliver messages, records, drugs and small articles of supplies throughout the building.

The hospital will contain complete facilities for the diagnosis and treatment of patients with visual and hearing defects. These particular specialties have been highly developed at Episcopal Eye, Ear and Throat Hospital and will be incorporated into the Washington Hospital Center.

Time does not permit the complete listing of all of the special services provided in this new hospital.

Book Reviews

Modern Perinatal Care. Leslie V. Dill, M.D., F.A.C.S. Price, $6.50. Pp. 309. New York: Appleton, 1957.

The publisher stated, in his blurb, that the purpose of the book is to present, briefly and concisely, a digest of current thought and modern technics for the care of women from earliest pregnancy through labor and the postpartum period. I agree with the publisher; and I would add that this book represents a tremendous amount of hard work, especially so if all the references listed were read before the writing of the text. The book is easy to read; the style is free from stilted phrases; and the author uses simple words and comprehensible sentences. I liked this book. You won't go to sleep reading it, I can assure you.

The 320 pages contain more than what one would expect from a brief and concise digest. The author in his quiet way has attacked most of our sacred obstetrical clichés by calmly stating the cliché and then knocking the props from under it with his casual, "This has not been demonstated," or "No proof has been offered to confirm this," or "This is difficult to evaluate," or "Not enough data," etc. Ah me! Our patients will no longer sit at our proverbial feet in wide-eyed adoration if we can no longer use, in conscience, our best conversational clichés of perinatal care.

The author has delved into a great many byways and backroads of maternity care as he gallops along through all phases of obstetrics. The book brought to my knowledge, for the first time, the fact that the anthropoid poppa ape often lends a helping hand to mamma ape when she is in labor by pulling on the visible portion of the yet unborn "apeling." Any resemblance that this might have to a few obstetricians that we have known in the past is purely coincidental.

The National Association of Manufacturers will love the author for his forthright opinion on financial maternity benefits claimed by pregnant women with backache and varicose veins. I agree with the author! They should not receive benefits if they cannot work after becoming voluntarily pregnant. All right! So we're a bunch of conservatives!

The author mixes up his chapters like a poker player shuffling the pasteboards. Every turn of the page is a surprise, and no one can state without fear of contradiction that this man will put you to sleep with a dull recitation of the usual textbook chapters. In this book you will find the unusual along with the usual. And if you say to yourself, after reading the chapter on Nutrition, "This is the usual," turn the pages and you will enjoy the chapter on Psychology of Pregnancy. Or, the author will depress the heck out of you with his chapter on the Practice of Obstetrics and the Law. Then again, his chapter on Religious Ethics Pertaining to Obstetrics may possibly stimulate your blood pressure.

The statistics quoted in the book and the statistical charts that are shown are sufficient only to prove a point, and thus they reveal the good restraint of the author in his effort not to pad his book and not to bore his readers.

From the obstetric viewpoint, the highlights of the book were the chapters on Abortion, Pelvic Mensuration, the Toxemias, and the Practice of Obstetrics and the Law. The author could have done much more with his chapter on the the Psychology of Pregnancy. What he did was good, but it needed more.

The last chapter of this interesting book, Religious Ethics Pertaining to Obstetrics, was an innovation. The author wisely backed away from controversy by stating only the facts as expressed by the Church, thereby leaving the interpretation thereof to the reader.

This is a readable book, and thoroughly conforms to our local way of obstetrical thinking in a very satisfying manner.

J. Earl Kadan, M.D.

Clinical Toxicology of Commercial Products—Acute Poisoning (Home and Farm). Marion N. Gleason, Robert E. Gosselin, M.D., Ph.D., and Harold C. Hodge, Ph.D., D.Sc. Price, $16.00. Pp. 1160. Baltimore: Williams & Wilkins, 1957.

This textbook would be an invaluable aid in all emergency rooms, clinics and physicians' offices or any other situation where one is apt to be confronted with a case of acute poisoning in which the contents of the poisonous (or possibly poisonous) agent is unknown either to the physician or to the patient. This book enables the physician to deal quickly and effectively with such cases by providing a complete reference list of Trade Name Products together with their ingredients. The book is divided into several sections, each of a different color for quick reference. There is a schematic outline in the beginning of the book which shows how one can obtain the necessary information quickly, depending on the type of situation at hand. There are 7 sections in this book.

The largest section is that which contains, in alphabetical order, over 15,000 trade names of products which might be ingested accidentally or suicidally. In most cases the ingredients are listed, with asterisks marking those ingredients which might be expected to be responsible for harmful effects. For each product listed the manufacturer's name is also given, and the category of use is indicated, e.g., silver polish, rodenticide, etc.

Other sections include: 1. First Aid and General Emergency Treatment; 2. Ingredients' Index, including

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Book Reviews

(*Continued from page 43*)

a toxicity rating of each; 3. Therapeutic Index, including signs and symptoms of toxicity, and recommended therapeutic programs; 4. Supportive Treatment; 5. General Formulations Section, which presents formulas for the diverse types of products listed in the Trade Names Index section; 6. Manufacturers' names and addresses.

This manual is the most complete one of its kind that I have seen. I believe that it is an excellent reference book for all practicing physicians, but, most important, I believe it is an indispensable aid for all emergency rooms.

JOHN W. WINKLER, JR., M.D.

Surgeons All. HARVEY GRAHAM, M.D. Price $10.00. Pp. 459, with 29 illustrations. New York: Philos Libr., 1957.

This volume is a purported history of world surgery. Actually, it is the story of British surgery with a long historical introduction. There is undue emphasis upon the English heroes while slighting those of other nationalities. European surgeons such as von Bergmann, Billroth, von Mikulicz, Sauerbruch, Trendelenburg, and Kocher are mentioned but briefly. Surgeons of the caliber of Doyen and Tuffier are unnoticed. The treatment of the American giants is in a similar vein. McDowell, Crile, Sims, and Cushing are mentioned in passing. Halsted is identified in a fleeting manner as the one to introduce rubber gloves to the operating room. No mention could be found of the Mayo brothers, S. D. Gross, Murphy or Senn.

The undue nationalistic emphasis is noted in two other instances. The background and the importance of the discovery of anesthesia is undeveloped, while the role of James Young Simpson in advocating the use of chloroform is treated at length. Several pages are devoted to surgery for mitral stenosis, yet no mention is made of the American surgeons who made the operation a reality and indeed a common procedure. A British surgeon is named in this connection, and the impression is created that he was the sole one to develop this surgery.

There are several most interesting chapters. The development of the Barber Surgeon's Company is well done. The section on quacks is very illuminating. Some of these could neither read nor write, yet they amassed fortunes and attained high positions. William Read was such an example; he started life as a tailor, but later he became a specialist in diseases of the eye. His worldly success was such that he attained knighthood and was oculist to the queen. Joanna Stephens in the mid-18th century sold her cure for bladder. The price was 5,000 pounds, which was raised by popular subscription with aid from the government. This "sovereign remedy" contained such elegant items as snails, eggshells, soap, and various seeds. The section on the resurrectionists and the "struggle for corpses" is one of the high points of the text.

The bibliography is rather short, considering the scope of the book. There are no footnotes or appendices.

GEORGE WILLIAM WARE, M.D.

Ph.D. The Philosophy of a Doctor. Experience and Aspiration. JANVIER W. LINDSAY, M.D. Price, $2.50. Pp. 83. New York: Pageant Press, 1957.

This is a delightful little volume designed to honor the medical and para-medical profession in a most pleasing manner. The theme of the book centers around a conversation between a doctor and his friends. Each contributes something to the conversation by recalling an outstanding figure of the past that has made medicine and its related sciences what it is today. The field of therapeutics, with its outstanding discoverers, are praised, as well as leaders of the nursing field, beginning with Florence Nightingale; pharmacy; surgery; religion; all are discussed in a refreshing manner. The author has personalized the most interesting highlights of the history of medicine in a way that is inspiring to all.

The volume can be read in one sitting, and should be reread from time to time by not only physicians but others who would appreciate knowing the great contributions made in the years past, as well as recently, to benefit mankind in the promotion of health and the lengthening of life.

The author was in charge of the Clinical and Pathological Laboratories of Garfield Memorial Hospital for 37 years and is known to many members of the D.C. Medical Society.

JOHN R. PATE, M.D.

An Atlas of Cardiac Surgery. JORGE A. RODRIGUEZ, M.D. Price, $18.00. Pp. 250, illustrated. Philadelphia: Saunders, 1957.

This Atlas of Cardiac Surgery consists of hundreds of drawings with narrative legends, based on the personal observations of the artist-author as he visited the major cardiac clinics of the United States and Canada. It depicts 29 standard procedures as performed by 24 cardiac surgeons. The drawings are from operating-room sketches made while observing the surgery. The entire field of cardiac surgery has evolved so rapidly that most of these contemporary surgeons had also done the original research on each problem. This atlas is consequently of historic interest as well as a practical guide to the surgeon. It brings up to date, in one clear, easily read volume, all of the concepts of cardiac surgery. This book should be of value to the pediatrician, the cardiologist, and the general practitioner in evaluating patients for the new types of surgery which have become possible. Cardiac surgery has now reached a point where this

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Book Reviews

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summing up is timely. The author's approach is effective, and his travelogue style makes this a readable surgical atlas.

The many illustrations are simple black and white line drawings, clearly and graphically showing each point that is emphasized in the accompanying text. It is easy to follow the progressive steps, and the author succeeds in making each of the procedures appear to be logical.

The book is divided into 6 sections. The first part, on surgical anatomy of the heart and great vessels, is based upon the author's own dissections. These drawings have a surgical orientation which has been consistently absent in earlier anatomical atlases.

The second section treats the adjuvants to cardiac surgery, such as the instruments and anesthetic devices used, including the special technics of hypothermia and the mechanical extracorporeal circulators devised for by-passing the heart during surgery.

The next three sections describe methods used in surgery of the great vessels, of the heart valves, and in the correction of congenital defects of the heart. Methods used in various clinics are candidly compared.

The last section, which is also applicable to other fields of surgery, discusses wounds of the heart and the treatment of cardiac arrest. Methods of applying effective treatment of cardiac arrest are especially well described, and should be studied by every surgeon and anesthetist.

Roy G. Klepser, M.D.

Foot Troubles. T. T. Stamm, F.R.C.S. Price, $4.75. Pp. 122. New York: Philos. Libr., 1957.

This short monograph rather sketchily discusses the many troubles of the human foot in various age groups. It seems to be primarily a glossary of the more common afflictions with an attempt to elucidate the etiology of some. Treatment of most is discussed but to a limited and nonspecific degree. When more specific treatment is required, the reader is referred to more "expert advice."

Worthy repetition is given to the need for well-fitting, well-constructed shoes, especially for the growing foot. Women, of course, are the chief offenders, with a consequently much greater incidence of foot troubles. The author infers that such deformities of the foot as hallux valgus develop mainly according to the treatment received during childhood and adolescence.

The fallacious idea that most foot troubles are due to "flat feet" is laudably decried. A supple flat foot is rarely painful and forms a good pedestal for long periods of standing.

(*Continued on page 52*)

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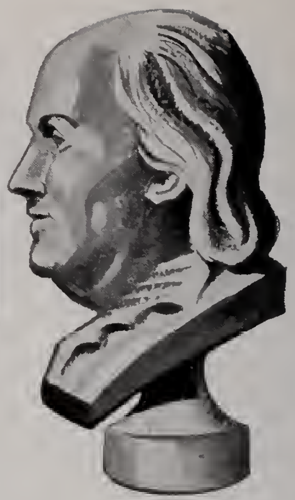

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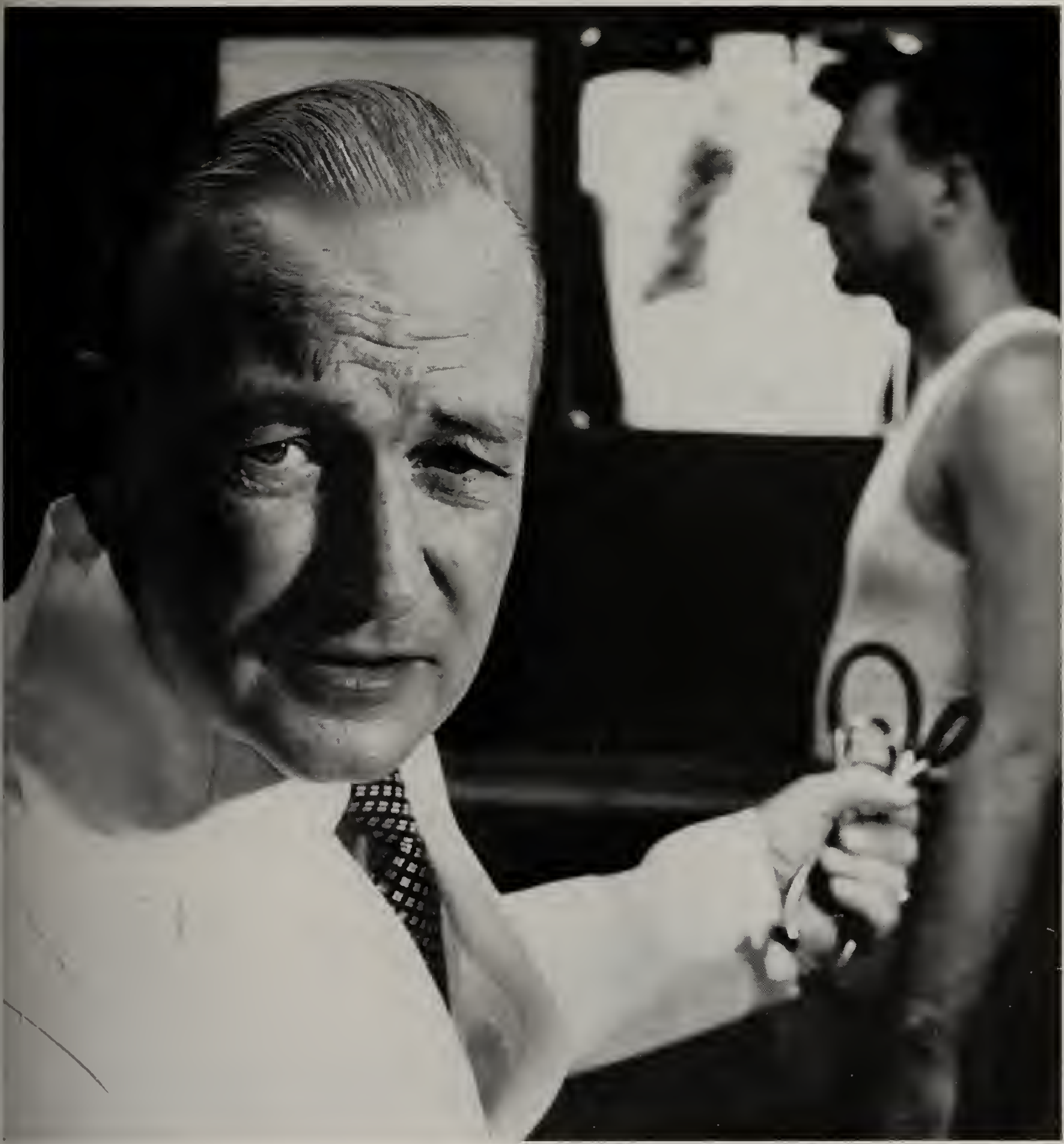

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Book Reviews

(Continued from page 47)

The author wisely stresses that too much useless treatment is rendered the child whose only apparent foot abnormality is flatfootedness.

This book would seem of most value to the lay person, especially to those medico-auxiliary personnel who have some understanding of medical terminology. Chiropodists may find it a bit elementary. The medical student or physician can better spend his time and money on the more standard texts on this subject.

JOSEPH O. ROMNESS, M.D.

Ciba Foundation Colloquia on Ageing. Volume 3. Methodology of the Study of Ageing. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.CH., AND CECILIA M. O'CONNOR, B.Sc., Editors for the Ciba Foundation. Price, $6.50. Pp. 202, with 47 illustrations. Boston: Little, 1957.

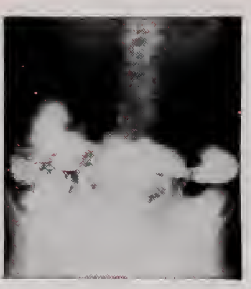
The subject of ageing has projected into the forefront in all fields of human endeavor and this is particularly true in the field of medicine. The first two volumes, "General Aspects" and "Ageing in Transient Tissues," brought out clinical subjects relating to the formulation of a planned program to study the various aspects of ageing. This third volume is a detailed treatise on the attempt to outline limitations, soft spots and good points prevailing in present-day methods used in an approach to the study of the problem of ageing. A few of the chapter notes are as follows: "The biological approach in the comparative study of ageing," "The study of the ageing cells," "Methods and limitations in studies of human organ system function," "Twin data on the genetics of ageing," and "Methodology of the study of intelligence and emotion in ageing." This will give the reader an idea of the scope of this work. The 3 volumes of the "Colloquia on Ageing" should be scanned, for decision of reading, by all those interested in the study of geriatrics.

The reviewer believes it may be of general interest to include the following: The Ciba Foundation, London, is an educational and scientific charity founded in 1947. Scientists are encouraged to meet informally to exchange facts and ideas, mainly at international symposia. The proceedings of these conferences are issued with a minimum of edition. The publisher of the above volume will furnish a special brochure on the volumes published for the lively speculations of outstanding workers in various fields.

MARCEL J. FORET, M.D.

when anxiety and tension "erupts" in the G. I. tract...

IN ILEITIS



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DISTRICT OF COLUMBIA

VOLUME XXVII *February*, 1958 NUMBER 2

ONE WORLD IN MEDICINE*

T. CLARENCE ROUTLEY, C.B.E., M.D.,
D.Sc., LL.D., F.R.C.P.(C)
Consultant General, The World Medical Association; Past President, The British Medical Association; Past President, The Canadian Medical Association

IT IS INDEED an honor to be invited to address this distinguished group, and I wish to assure you that I am deeply touched by the warmth and cordiality of your welcome.

For three days you have been engaged in a program built around a central theme of global medicine. I should like to compliment and congratulate you upon the amplitude of your vision in this unique undertaking. I say unique, because, so far as I am aware, you are the first local medical society in the world to do so.

However, one is not surprised to find the Medical Society of the District of Columbia focusing attention upon the health problems of the world as a whole. After all, you dwell in a city and live in an atmosphere which might well be described as a vital nerve center of civilization, as we understand it today.

It would be difficult, I think, for anyone living in Washington to fail to be conscious of the currents and cross currents of human existence, and, of course, it is most natural that these problems, involving as they do man's health and peace of mind, should occupy an important place in the thinking of the doctor.

What are some of the major problems facing man today? Half the world is bond—half free, one-third of the world is sick and has an expectation of life of 30 years, and one-third of the peoples of the world have a per capita income of less than $50.00 a year. All humanity yearns for happiness, security and freedom from pain. It is no longer speculative that devastating diseases such as malaria, tuberculosis and yaws, to mention but three, could be eradicated from the world if present knowledge and proven measures were fully marshaled in the fight. Surely these are all sobering and tremendously challenging facts for mankind's devoted servant, the Doctor.

Dr. Raymond B. Allen, Chancellor of the University of California in Los Angeles and President-elect of the second World Conference on Medical Education, which is to be held in Chicago in September of 1959 under the auspices of The World Medical Association, said a fortnight ago in Istanbul, Turkey, while addressing the Council of the World Medical Association, "If the doctors of the world cannot coöperate, who can?" And how right he is. There is no profession or trade or occupation known to man which has such a universal common denominator as is found in medicine.

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* Address delivered at the Annual Dinner, October 16, 1957, during the 26th Annual Scientific Assembly of The Medical Society of the District of Columbia.

During the past 10 years it has been my privilege to visit the medical profession in a great many countries of the free world. I have seen the doctors at work in leper clinics in India, in tuberculosis clinics in Native Africa, in malaria centers in the Middle East, and so on. I have traveled upwards of half a million miles by air and flown the Atlantic 56 times. You will not be surprised, then, when I say that World Medicine has become very much a part of me. But tonight we are changing that title around a bit. We propose to focus attention for a brief period upon "One World in Medicine." When I first heard of this title I thought the words had been wrongly transposed and that I was really being asked to speak on "Medicine in One World." But when I put this point to your Secretary, he assured me that I was wrong and that the title of this talk was chosen with great care and deliberation. The title in fact was not just one of those routine headings for a talk, which, with variations that might or might not be elegant, would follow well-worn paths of platitudes and philosophizing. No. The title crystallized a new thought. It throws out a new challenge. I shall try to meet it as best I can, although I must confess I should have liked a little more time for reflection than has been possible during the past 6 weeks of journeying more than 25,000 miles in Africa and the Middle East.

I shall begin by looking at the implications of the title which was rejected, "Medicine in One World." This would have carried with it a familiar and apparently irrefutable implication, namely, that there is one world. It is true that there is a planet called "Earth." Not so long ago one might have assumed that this stable object would pursue its faithful and graceful course around the sun except for those deviations that astronomers could predict with a fair degree of confidence. It is true that these learned gentlemen have foretold an ultimate cooling of the earth that would discourage the continuance on it of life as we know it at present. This was, however, so many thousands of years in the future that very few of us spent sleepless nights meditating upon this threat to the eternal existence of man as a species. But, within the short space of 20 years our reasonable assurances —not to mention some of our most cherished illusions—have been brutally destroyed by the scientific genius and ingenuity of man himself.

The atomic age is here, with us today, with its unbelievably great promise for good and even greater potentialities for human tragedy and indeed ultimate destruction, even of the great globe itself. All this apart, we see today the world we call "Earth" inhabited by human beings whose capacity for mutual hatred and destruction is unequaled by any other mammalian species. This tendency to mutual destruction is fanned to a flame and justified by ideological conceptions, often with extreme fanaticism.

The world, it seems, is now divided into two great blocs of nations, which in varying degree follow one or the other of two opposing beliefs on the nature and purpose of man. This is, of course, a simplification, but one which I know will not mislead the distinguished audience I am addressing this evening. We are faced with a situation which has called forth that frightening and deadly phrase of worldwide currency, "the iron curtain," a phrase that might well have been the title of one of the more gruesome short stories of Edgar Allan Poe.

So the title that might have been chosen would have been misleading, a falsification of what is, just another smooth phrase that doubly deceives by its seeming truthfulness. In spite of sharp division of belief, bitter controversy, fratricidal strife, and the police state, we all of us still carry on our daily lives buttressed by a faith that somehow or other mankind will succeed in keeping to the middle of the road, that it will avoid the humiliation of race suicide. Are we justified in assuming these things? I doubt it. There is just no room for complacency if we look at the world as it is today with an objective vision. Nor does the history of the vertebrate kingdom offer us any great consolation. Think of that extensive period of time when the reptilian orders ruled the earth; they swam in the waters, they flew in the air, they burrowed under the earth, and they walked on dry land. Some of them developed their bodies into instruments of efficient aggression, while others resorted, by way of response, to protective mechanisms. They were indeed heavily armored creatures. All this was before man had appeared on the earth. To a reptile of the Mesozoic Period it must have looked as if the final goal of evolution had been reached. Then, the long, slow night of annihilation set in, and, failing to adapt to changes of environment, nearly all the orders of reptiles disappeared, leaving behind a few traces of their significance now found in those portentous skeletons in our museums of national science and such living representatives as the tortoise.

It can happen again, this time to us. Now, it is not for me as a doctor to analyze the political, economic and ideological conditions which have led to the formation of two worlds on this planet called "Earth." But, as a doctor, I can see that this abnormal division into two worlds will follow the natural course of abnormal division of cells that leads to cancers unless some remedy is found. Across the boundaries of one sort and another that now separate human beings, I can, as a doctor, see what is after all quite an obvious thing to see—at least one thing we have in common besides a common humanity, and that is medicine.

The word holds within its meaning a large number of activities—the activities of doctors, nurses, clinics, hospitals, bacteriologists, and research workers in a host of laboratories, just to mention at random a few of the principal ingredients.

Medicine, with a capital M, is moreover a profession. Many books have been written about the professions, and many attempts have been made to define the term. I shall attempt my own. A profession is a corporate body of men and women, especially trained to give expert and essential advice and service to the community, being directed in this by ethical principles and a high level of educational standards.

Each nation—and how intensely national in spirit is the world today—has its own medical services. But there is no such thing as American Medicine, Canadian Medicine or European Medicine. There is only one Medicine, more advanced in one country than in another, it is true, either in the field of research or in the forms and extent of its application. It is an art based upon the rational methods of scientific inquiry. Now, many of the findings of science are guarded as either the secrets of manufacturers or the secrets of government.

In medicine there are no national barriers. The medical journals of the world freely publish the results of research of people in different countries. I would be so bold as to say that there are more international societies in the world of medicine than in any other field of learning. Doctors are not only willing but eager to share with each other their knowledge, their findings, and their experience.

Think of Harvey, Pasteur, Lister, Jenner, Truetta, Banting, Fleming, Florey, and Salk, just to mention a few. Why are they so anxious to share with all the world? The answer is quite simple. The sole aim of the doctor is to relieve the suffering and to promote the health of men, women and children everywhere on the face of the globe—of individual human beings—but, mark you, as individuals—not, I repeat, of nationals.

A doctor treating a sick person is concerned neither with that person's race, nor his religion, nor his status in society, nor his nationality. A sick person is a sick person the world over. It was this fact that between the two world wars made the Health Organization of the League of

Nations the only satisfactory mechanism in an attempt to create one world. It was this fact that made the creation of the World Health Organization such a relatively simple matter after the second world war. Upon the invitation of the British Medical Association it was this fact that led to the creation in 1947 of the World Medical Association, an association of 55 national medical associations representing 750,000 doctors in most of the countries of the free world; an association to which all doctors may point with considerable pride and satisfaction as an attempt to extend healing around the world; an association which will learn with much pleasure and gratitude of the honor which is being paid to it at this time by the Medical Society of the District of Columbia. There is, Mr. President, One World in Medicine. There are many worlds in religion, in law, in politics and economics, yes, even in science, as shown by the fences put around the development of nuclear energy.

And so, having examined the implications of your carefully chosen title, I conclude that you have, by a brilliant stroke of intuition or shrewd medical judgment, divined what is a fact, and have given us a slogan of overwhelming significance to the people of the world. What can this "One World in Medicine" do? Is it possible for it to do something to bring together a world torn asunder? Am I making an arrogant assumption that Medicine could or should attempt such a Herculean task? I do not think so. I am not claiming that medicine has in its store of drugs a panacea for the present grave ills of mankind, but I believe it is capable of doing something. I have already mentioned the World Health Organization as a specialized agency of the United Nations with which the World Medical Association is glad to be affiliated. It does a great work, functioning, as you know, as an intergovernmental organization. That is inevitable and natural. Its contacts, therefore, are mostly at the official level. I took some part in the planning stage in setting up W.H.O. and have a wholesome regard for what it has done and is doing. The World Medical Association, on the other hand, rejoices to think, as I have already mentioned, that it represents more than 750,000 individual doctors, a group which unquestionably enjoys tremendous influence with the peoples of the world as the ones who care for them in their times of physical stress and mental disturbance.

The W.M.A., with which I am happy to say I have been associated throughout its entire existence, meets twice a year in different countries of the world. And for what purpose? The Association is committed to three outstanding ideals:

1. To assist in the establishment and maintenance of the highest standard of medical care.
2. To do all in its power to assist all mankind to attain to the highest possible level of health.
3. To promote World Peace.

Having enjoyed mingling with doctors in every continent of the world, I say with confidence that the unity of medicine is something so profound in its significance and so deeply rooted in the consciousness of doctors of whatever race or creed, that there are practically no barriers between mutual understanding in our profession. More than that—so real is our sense of belonging to a worldwide brotherhood that friendships which are firm and cordial are readily formed. There already exists, through the W.M.A., a worldwide fraternity of medical men and women.

One World in Medicine? Yes, I repeat, it already exists. It is doing a great deal to cement relationship among the doctors of the world. In medical education, medical ethics, promotion of research, surveys and studies, it is providing practical help and leadership to all sections of the free world, more particularly to the less favored and more underdeveloped countries, and by so doing is, we believe, promoting world peace.

I hope that I have given you the irrefutable proof that there is One World in Medicine. If

(*Continued on page 110*)

THE SEDIMENTATION RATE AND ABDOMINAL SUPPURATION*

BARNET M. HERSHFIELD, M.D.
HOWARD WESSON, M.D.

New York City

ALL OF US are aware of the changing complexion of medical and surgical practice during the past three decades, and few of us would fail to nominate the introduction of the antibiotic drugs as a factor in that change. Those who have practiced medicine for many years are cognizant of a continuing necessity for reëvaluation; familiar syndromes run an altered course; vexing problems yield to advances in management; and inferences once simply arrived at with confidence are negated by novel complexities.

The precise and proper evaluation of infection, and especially of concealed suppuration, is often one of the surgeon's ancillary problems, and is sometimes a matter of paramount concern. Unfortunately, the time-tried criteria for the detection and measurement of such a condition may be misleading when the antibiotics have been exhibited. Most of us have encountered residual abdominal abscesses, empyema of the gallbladder, abscess associated with appendicitis, ulceration, or diverticulitis in patients who have had ample antibiotic therapy and in whom the criteria of subjective discomfort, fever, rapid pulse and leukocytosis have disappeared.

It is our purpose to call attention to the erythrocyte sedimentation rate (E.S.R.) and to emphasize that this test can be of aid in the management of patients suspected of localized infection and in whom the familiar reactions of temperature, reticulo-endothelial response, and subjective symptoms have been altered by treatment with antibiotics.

One rarely reads a clinical abstract or listens to a case report without finding some reference to the E.S.R. Its estimation is a routine in most hospitals. It commands respect in the screening, diagnosis, and treatment of the collagenous diseases, tuberculosis, and acute myocardial infarction. Its value in differentiating osteoarthritis from rheumatoid and gouty arthritis is acknowledged. At times it serves to raise the suspicion of malignancy, but because the acceleration of erythrocyte sedimentation is a function of a rather ubiquitous metabolic change it lacks disease specificity. This lack does diminish its attractiveness as a clinical tool, so that the real implications of the test are often ignored. Especially is this so when a rapid rate is recorded in the absence of the more conventional signs and symptoms.

It is not our intention to discuss the suspension stability of the blood at great length. However, a few remarks concerning the phenomenon may be in order.

Hewson recognized some 250 years ago that the determining factor resides in the plasma because when the corpuscles of so-called "sizy" blood were transferred to normal plasma sedimentation was no longer accelerated.[1] He also observed that the sinking speed of corpuscles was greater in plasma than in serum. The addition of acacia or of albumin accelerated the sinking velocity. The further demonstration that the addition of fibrinogen leads to a greatly increased sedimentation rate, and the fact that the plasma fibrinogen is usually increased when the sedimentation rate is clinically accelerated fortified the conclusion[2] that increased sedimentation velocity results primarily from an increase in plasma fibrinogen. When other protein fractions are added to the blood, there is a lesser acceleration of sedimentation.[3] There appears to be a correlation between plasma globulin and the sedimentation rate, a relationship especially evident in hepatic disease, in which plasma fibrinogen is low.[4] The alpha and beta globulins have been proved effective in accelerating the sedimentation rate. Gamma globulin is least effective, while pure albumin actually inhibits sedimentation.[5]

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* From the Departments of Medicine and Surgery, Jewish Memorial Hospital, New York, N. Y.

These basic facts from elementary serology correlate well with the observations in the more complex clinical situations and make it evident that the suspension stability of the blood is a function of its protein constitution.[6]

There are many other factors which also influence the rate of erythrocyte sedimentation.[7] Anemia or erythremia alters the quantitative relationship between the fluid and particulate phases of the blood; rouleau formation results in corpuscular aggregates of large volume and small surface area.[8] Less easily explained but quite as evident are the physiologic variations predicated on age, sex, menstrual function, pregnancy, and the like. But these physical and physiologic variables are simply discounted in clinical practice, and the significant variations in the rate of erythrocyte sedimentation remain a reflection of the protein constitution of the blood,[9] just as the leukocyte count reflects reticuloendothelial activity, or as the temperature is a measure of the level of metabolism, or as the pulse rate is a resultant of cardiovascular and other influences.

Our experience has led us to believe, moreover, that, when infection or suppuration persists during and after antibiotic therapy, the estimation of the sedimentation rate will serve more reliably than will these more commonly used and more highly regarded criteria. The following cases illustrate the kind of clinical experience which led to this conclusion.

Illustrative Cases

Case 1. N. S. was admitted to the Jewish Memorial Hospital on September 11, 1947 and discharged on October 4, 1947. This 59-year-old man was known to have cholelithiasis and in July had suffered a severe febrile illness with chills and fever to 106°F with frank clinical jaundice which had the characteristics of incomplete biliary obstruction. He had been intensively treated for cholangitis with antibiotics and symptomatic measures and had completely recovered in 3 weeks. For 7 weeks he had been symptom-free, afebrile and not jaundiced. His white blood cell count was 8,500 with 66 per cent granulocytes, of which 65 per cent were mature polymorphonuclear forms. The abdominal findings were quite within normal limits. His sedimentation rate, however, was 63 mm. per hour. At elective laparotomy a gallbladder with the gross characteristics of calculous empyema was removed. Pathologically it was reported as a phlegmonous cholecystitis. His postoperative course was uncomplicated, and 3 days before his discharge his sedimentation rate was 74 mm. per hour. This was closely observed through his convalescence and was noted to fall steadily and progressively to normal in 8 weeks' time.

At the time, we were impressed by the fact that the accelerated sedimentation rate was the only finding which was commensurate with our expectation of severe residual biliary tract inflammation and was the only preoperative datum which correlated well with the condition encountered.

Case 2. S.P.'s first admission to the Jewish Memorial Hospital was on February 11, 1949, and her final discharge was on January 31, 1951. During a 2-year period this 26-year-old woman was hospitalized 6 times. Her illness started with abdominal pain and fever for 3 weeks. She was treated at home with short courses of antibiotics. She was admitted first with a temperature of 100°F, a white blood cell count of 10,500 with 70 per cent granulocytes, 67 per cent of which were mature forms, and with physical findings clearly pointing to localized right lower abdominal inflammatory disease. Her sedimentation rate was 104 mm. per hour. At operation a perforated appendix with periappendicitis and localized abscess formation was encountered. Appendectomy with drainage was performed. Her course was stormy, and 1 week postoperatively she was operated upon again for the release of inflammatory adhesions causing small bowel obstruction. She then did quite well, became afebrile, and within 2 weeks was ambulatory and symptom-free and was discharged. Her sedimentation rate was 110 mm. per hour.

Four and one-half months later she was admitted to the medical service because of a septic type fever, mild jaundice, emesis and epigastric pain. Enlargement of both liver and spleen was present. Observation by both the medical and surgical services established the presumption of pyelophlebitis with multiple hepatic abscesses. During this observation her white blood cell count varied from 12,000 to 8,400 and her differential count showed 67 to 80 per cent neutrophils and 10 to 20 per cent band forms. At this time her sedimentation rate rose from 70 to 110 mm. per hour. She was intensively treated with Aureomycin for 3 weeks with a gratifying response. Over a 10-day period her septic fever diminished, and thereafter she was afebrile. Her abdominal findings reverted to normal, and she was discharged 9 weeks after her second admission with a white blood cell count of 9,800 with 79 per cent segmented neutrophils and 6 per cent band forms. Her sedimentation rate was 100 mm. per hour.

Two months later she presented herself again with a temperature of 102.8°F and abdominal pain and nausea which had been present for 2 weeks. There was a grapefruit-sized tender mass in the right lower abdomen. Her leukocytes numbered 15,800 with 70 per cent segmented cells and 8 per cent band forms. Her sedimentation rate was 80 mm. per hour. The day after admission her abscess was evacuated by extraperitoneal drainage. A specimen of the exudate was reported as showing no growth after 72 hours. She improved rapidly, became afebrile by the fourth day, and was discharged 3 weeks after her operation for drainage.

Within 3 weeks she was back again, this time with her findings limited to the right upper abdomen and with a temperature of 102°F. The leukocytosis was not impressive—10,800 with 69 per cent segmented cells and 4 per cent band forms. Antibiotic routine was pushed for 9 days, but the fever did not resolve. Her subphrenic space was explored, and an abscess eroding into the liver and communicating through the diaphragm with the bronchial tree was evacuated and drained. Her temperature became normal and remained so after the first postoperative day. Two weeks after her drainage was instituted her sedimentation rate had dropped to 40 mm. per hour. A year later a residual fistulous tract was excised electively. Her sedimentation rate was normal, and she has remained well.

For 11 months this young woman harbored some degree of intraperitoneal localized suppuration. On many occasions the conventional criteria encouraged those charged with her management to feel that her problems were solved. We had the opportunity to observe all manner and degree of correlation and discrepancy between her lesion, on the one hand, and her symptoms, leukocyte response, fever and pulse rate on the other. However, from the day of her first admission until 2 weeks after the final control of her last focus of suppuration she maintained a consistent and substantially elevated sedimentation rate. Her sedimentation was never once found in the normal range throughout a year of observation, but since it finally entered that range she has remained well for 4 years.

Case 3. S.K. was admitted to the hospital on September 11, 1953 and discharged on October 25, 1953. This 38-year-old man was seen by one of us (B.M.H.) 8 days after appendectomy and drainage for retrocecal, gangrenous appendicitis with purulent peritonitis which had yielded *E. coli* on culture. At this time his temperature had risen to 106°F, he had a leukocytosis of 26,000, his sedimentation rate was 84 mm. per hour, and a chest roentgenogram had been reported as showing bilateral pneumonia. An evaluation of the clinical situation led to the conclusion that the significant cause for the morbidity lay within the abdominal cavity, and an appropriate change and intensification of the antibiotic routine was advised. There was early and consistent improvement. Within the week his temperature fell to 100°F and his white blood cell count to 14,000 with 78 per cent polymorphonuclear forms. The sedimentation rate was 100 mm. per hour. By the end of the second postoperative week the surgeon detected a "bogginess" of the cul de sac on rectal examination. On the twenty-seventh postoperative day his temperature was 100°F or less for 2 weeks, but the sedimentation rate remained at 105 mm. per hour. The pelvic mass was better delimited and seemed to be "pointing." The patient felt quite well, was ambulant, and insisted on leaving the hospital with the abscess unruptured. Ten days later he was readmitted with a temperature of 102°F. His white blood cell count was 12,000, with 80 per cent polymorphonuclear forms and only 3 per cent immature granulocytes. His sedimentation rate had risen to 122 mm. per hour. His abscess was promptly drained, and the improvement was immediate. He was discharged in 1 week. His sedimentation rate was followed by his surgeon; it gradually fell to normal within 4 weeks.

In this case the sedimentation rate remained consistently elevated, whereas the other criteria were at times ambiguous and throughout were a less accurate reflection of the known condition.

Case 4. M.B. was first admitted to the hospital on February 5, 1954 and finally discharged on March 19, 1954. On her first admission to the hospital this 54-year-old woman complained of abdominal discomfort of 3 weeks' duration. For 1 week there had been obstipation with increased abdominal pain, particularly on the left side, and for 2 days she had had fever as high as 103°F. A large, soft, easily movable mass which was not particularly tender was palpable in the left upper quadrant of the abdomen. Her blood count on admission showed a leukocytosis of 20,000 with 86 per cent granulocytes, 6 per cent of which were band forms. The X-ray investigation showed no evidence of gastric, duodenal or colonic trouble, but the barium in the small intestine outlined a rounded mass measuring about 9 cm. in diameter and located in the left upper quadrant of the abdomen just below the level of the tip of the twelfth rib. The intravenous pyelogram demonstrated the mass to be distinct from the kidney outline. By the fifth day of hospitalization her temperature was of low grade and her white blood cell count had fallen to 9,800 with only 49 per cent granulocytes. Her sedimentation rate was 115 mm. per hour. By the tenth day she felt well, but her sedimentation rate was 105 mm. per hour. Laparotomy was advised, but the patient left the hospital against advice. Two weeks later she was readmitted for recurrent abdominal discomfort and a temperature of 101°F. Her white blood cell count was 8,600 with 63 per cent granulocytes and 3 per cent band forms. The physical characteristics of the abdominal mass were unchanged. The surgeons entertained many diagnostic possibilities, most of them not involving suppuration. The sedimentation rate at this time was 102 mm. per hour. At laparotomy an abscess cavity adherent to the anterior abdominal wall bounded by omentum was found and drained. Part of the abscess wall involved 2 loops of small bowel. The origin was not determined. Convalescence was smooth, and the patient was discharged in 2 weeks. Twelve days after discharge her sedimentation rate was 85 mm. per hour, and 4 weeks after discharge it was 25 mm. per hour.

In this case the clinical evidence of suppuration which was evident on her first admission resolved so that intra-abdominal cysts and neoplasm were considered as more likely diagnoses when she was readmitted. Her sedimentation rate did not vary in a like manner and was throughout more consistent with the persistent suppuration.

Case 5. M.R. was first admitted on July 11, 1950 and finally discharged on May 12, 1954. This 61-year-old man was treated in 1950 for acute myocardial infarction. Two years later he was readmitted for the management of hematuria associated with prostatic hypertrophy. Six months after this he was hospitalized for 1 week for a bout of right upper abdominal colic. During this admission he had a fever of 101°F for 1 day. The diagnosis of biliary colic was made. This was substantiated by the demonstration of a nonfunctioning gallbladder on X-ray examination. His white blood cell count was 8,150 with 77 per cent granulocytes, and his sedimentation rate was 106 mm. per hour. On discharge his sedimentation rate was 94 mm. per hour. Four months later he was again admitted with jaundice which had followed a brief episode of abdominal colic. He was afebrile and had a leukocyte count of 7,750 with 69 per cent polymorphonuclear cells and a sedimentation rate of 62 mm. per hour. The remainder of the laboratory investigation established the icterus as being of mechanically obstructive character. Three days after admission he was operated upon for obstructing common duct stone. A calculous gallbladder which showed active chronic ulcerative cholecystitis was removed, and common duct drainage was established after the removal of several duct calculi. The immediate general postoperative reaction was minimal, but on the second postoperative day there was a temperature rise to 102°F. On the eighth postoperative day hiccough developed. For the next 10 days these spasms were recurring at frequent intervals and became quite severe. During this period a normal urea nitrogen in the blood was reported, decreasing icterus was observed, and the common duct drainage remained satisfactory. A cholangiogram revealed no obstruction and no evidence of residual calculus. The physical findings raised the suspicion of subphrenic abscess to account for his diaphragmatic irritation, and the suspicion was confirmed by the X-ray demonstration of a right subphrenic translucency with a fluid level. The antibiotics which had been exhibited postoperatively had been continued, and by this time his temperature had reached normal and remained so. His highest leukocyte count had been 14,000 with 68 per cent granulocytes, and in the third week postoperatively this had come down to 8,000 with the same differential count. Sedimentation rates taken at the time of these blood examinations were 89 and 82 mm. per hour. One month postoperatively the patient was clinically well, and fluoroscopic and X-ray examinations no longer demonstrated translucency, fluid level, diaphragmatic elevation, or immobilization. The patient was discharged 1 month after operation, and his sedimentation rates were followed and were found to decline gradually to a normal value of 24 mm. per hour in 8 weeks. He has been observed for 10 months following his discharge and has shown no evidence of any residual difficulty.

In this case the decision to withhold surgery in the management of a postoperative suppurative complication was made, of course, on the evaluation of the entire clinical picture. However, the sedimentation rates of less than 90 mm. per hour and the progressive decline in the rate under continued antibiotic therapy encouraged us to continue with nonoperative management. The final satisfactory result seems to have justified the interpretations made.

In order to test the validity of our impression that the sedimentation rate was, indeed, useful in the kind of clinical situations we have reviewed, we thought it proper to note the changes in blood stability in unselected laparotomy cases.

Material and Methods

One hundred consecutive patients coming to abdominal section and who were treated postoperatively with antibiotics in a routine fashion were evaluated in the following manner. An erythrocyte sedimentation rate (Westergren method[4]) and blood fibrinogen determination[10, 11] were done preoperatively. On the fourth to sixth postoperative days the sedimentation rate was repeated. If this value was appreciably elevated, blood fibrinogen and plasma proteins were evaluated. The routine was repeated before discharge of the patient from the hospital. If the postoperative course was complicated or lengthy, these determinations were made at weekly intervals as a follow-up study. When the patient's condition appeared satisfactory and the surgeon felt that the patient was ready to leave the hospital, even though the sedimentation rate was markedly elevated, it was requested that the patient return for repeated tests at intervals of 2 weeks. These patients were followed clinically in the outpatient department or by their private physicians. The character of the clinical material thus surveyed is indicated in table 1.

Results and Discussion

From an analysis of the data we thus compiled we were able to define certain characteristics in the behavior of the sedimentation rate in the postoperative patient given antibiotic therapy. Our observations of protein chemistry substantiated the relationship between sedimentation acceleration and levels of plasma fibrinogen. Variations in the sedimentation rate dependent upon sex, maturity and alterations in physiology were of minor magnitude and were easily discounted. On the other hand, each situation of real clinical moment which might have been expected to accelerate sedimentation did, indeed, cause a substantial change. The minor variants not induced by disease caused increases up to 30 mm. per hour. The trauma, incident to the surgery itself, induced accelerations in the range of 30 to 90 mm. per hour, with most of the more rapid rates being encountered in those cases of extensive dissection. When residual or complicating disease was of clinical significance it resulted in accelerations to levels of 80 to 125 mm. per hour. Lesions of the nature of generalized inflammation of catarrhal character did not give as marked an acceleration as did localized suppuration. Malignant lesions, particularly when

TABLE 1

Character of Clinical Material in 100 Patients

		No. of Cases
Carcinoma of stomach		3
Benign gastric disease		
Hemorrhage	6	
Ulcer	4	
Tumor	1	11
Malignant lesion of the colon		7
Diverticulitis of colon with perforation and abscess formation		1
Pelvic malignant lesion		3
Pelvic disease (nonmalignant, noninflammatory)		19
Adnexal inflammatory and suppurative disease		5
Intestinal obstruction		2
Intra-abdominal abscess (etiology undetermined)		1
Appendicitis (inflammatory, ulcerative, suppurative, and gangrenous)		18
Cholecystitis (acute, suppurative, gangrenous and ruptured)		27
Carcinoma of pancreas		3
TOTAL		100

tissue necrosis was a factor, gave acceleration of the same magnitude as did localized suppuration.

The acceleration of the rate induced by either inflammation or surgical trauma was of prompt onset. An acceleration so induced resolved only gradually toward normal, even though the clinical evolution of the condition was entirely satisfactory. Increased rate incident to surgical trauma declined to normal in 4 to 6 weeks, and that consequent to inflammatory disease in 6 to 10 weeks. Any delay in resolution beyond these time limits could be correlated with a lesion which called for a change in management, or at least for continued close observation. Rates which were accelerated by the surgical manipulations showed an uninterrupted decline toward the normal, and any material reversal of the trend was a result of complicating disease. Similarly, those patients with inflammatory complications successfully managed with antibiotic therapy, and in our judgment satisfactorily controlled, had an uninterrupted decline to the normal range. It was repeatedly evident in the data that the sedimentation rate was consistently elevated by residual or complicating inflammation even though the fever, leukocytosis, and clinical symptoms had resolved under the influence of the antibiotics. The previously mentioned relationship between fibrinogen levels and the sedimentation rate is borne out in our series (chart 1). Although there is considerable spread at each level it is apparent that if we accept the average standard of 30 mm. per hour (Westergren) as the lowest significant sedimentation rate, there is no instance below that figure in which the fibrinogen level exceeds 0.35 mg. per 100 ml., and in no instance above the 30 mm. per hour level does the fibrinogen fall below 0.38 mg.

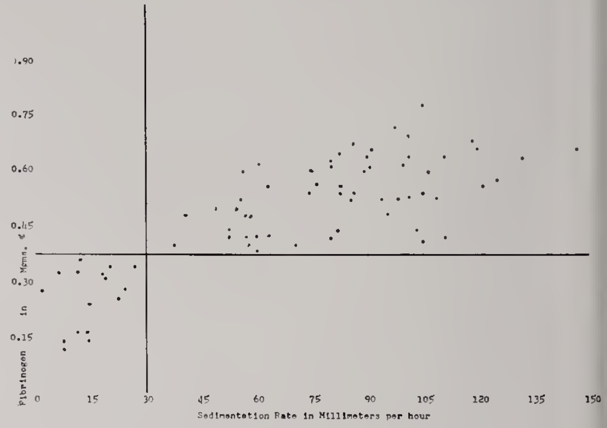
Conclusion

In a series of cases representative of material routinely encountered in abdominal surgery, critical observation of the behavior of the sedimentation rate has demonstrated that the implications of the test are not vitiated by antibiotic therapy.

When antibiotics are being administered the sedimentation rate is the most consistently reliable of the commonly employed criteria for the evaluation of the progress of intra-abdominal inflammatory disease.

CHART 1

Relationship between Fibrinogen Levels and Sedimentation Rate



In current surgical practice, where antibiotics are so often used, a closer attention to changes in the sedimentation rate is warranted.

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BIBLIOGRAPHY

1. Katz, G. (Berlin), and Lefkowitz, M.: Ergebn. inn. Med. u. Kinderh., 1928, **33**, 266; cited by Wintrobe, M. M.: Clinical Hematology, 3rd ed. Philadelphia: Lea, 1951, p. 285.
2. Gilligan, D. R., and Ernstene, A. C.: Am. J. M. Sc., 1934, **187**, 552.
3. Gordon, C. M., and Wardley, J. R.: Biochem. J., 1943, **37**, 393.
4. Ham, T. H., and Curtis, F. C.: Medicine, 1938, **17**, 447.
5. Gray, S. J., and Mitchell, E. B.: Proc. Soc. Exper. Biol. & Med., 1942, **51**, 403.
6. Shedlovsky, T., and Scudder, J.: J. Exper. Med., 1942, **75**, 119.
7. Westergren Method: See ref. 4.
8. Hirschboeck, J. S.: Blood, 1947, **2**, 578.
9. Lucia, S. P., Blumberg, T., Brown, J. W., and Gospe, S. M.: Am. J. M. Sc., 1936, **192**, 179.
10. Hill, R. M., and Trevorrow, V.: J. Lab. & Clin. Med., 1941, **26**, 1838.
11. Weichselbaum, T. E.: Am. J. Clin. Path., Tech. Sect., 1946, **10**, 40.

MENTAL HEALTH NEEDS AND SERVICES IN THE DISTRICT OF COLUMBIA*

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THE COMMISSIONERS of the District of Columbia in 1952 appointed a committee to survey the mental health needs of the District. Mr. G. Howland Shaw, now President of the D. C. Association for Mental Health, was chairman of that committee. Some of the recommendations of this committee, such as the one for increased psychiatric facilities at D. C. General Hospital, have been carried out; others have not, although the need for them today appears even greater than in 1952.[1] Added to the previous demands are others which have appeared, particularly in the demands for preventive work with children and the earlier release from mental hospitals of convalescent patients.

Size of the problem. The mental health needs of the District of Columbia can hardly be overstated, if one considers the extent of mental illness in the population. Among adults the toll of severe mental illness alone includes more than 5,000 residents of the District hospitalized in St. Elizabeths Hospital at any one time, with a probable 8 to 10 times this number in need of some type of psychiatric care. Between July 1, 1955 and June 30, 1956, 4,081 patients were admitted to the Psychiatric Service of D. C. General Hospital and about 75 per cent were returned to the community. Of the psychiatric admissions to this Hospital, an estimated 40 per cent were on account of the effects of alcohol.

Have we reason to believe that these statistics adequately indicate the size of our problem? On the contrary, the situation is even likely to be worse. A recent survey of the prevalence of chronic illness in Baltimore resulted in a conservative estimate that approximately 10 per cent of the noninstitutional population are mentally ill at one moment in time. Psychoneurosis is approximately 12 times more frequent than psychosis, and other emotional disorders are about two-thirds the number of cases of psychoneurosis. The study demonstrated that, with increasing age, psychosis rises precipitously: from only 0.4 per thousand among the group aged 15 through 34, the prevalence increases 14-fold for the group aged 35 through 64, and the latter amount is multiplied by 5 for the "65 and over" age group. Psychoneuroses are fairly uniformly distributed in age groups over 15, but the "other emotional disorders" show a significantly larger number of cases in the 15- through 34-year group than in the 35- through 64-year group.[2]

It is pertinent to observe that the Baltimore survey did not include such categories as alcoholism, childhood behavior disorders, mild mental defect, and other minor personality or behavior disorders. The finding of approximately one-tenth of an urban population beset by one of the relatively well-defined mental disorders again emphasizes the importance for action by the community.

The presence of a problem of this magnitude is verified by experience reported recently before a California Senate Committee. The Executive Director of the Family Service Agency of Santa Barbara said: "Of this number [935 individuals in 315 families], approximately 10 per cent were in need of diagnostic services from a mental health clinic and of treatment, either in an outpatient or an inpatient situation at state expense."[3] In terms of the population of the District of Columbia, this means that there are an estimated 85,000 noninstitutionalized persons in the community at any one time with such disorders and in need of care.

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Adult outpatient services. District of Columbia facilities are inadequate to supply the services to the estimated number of adults needing care. This is reflected in the delay for treatment services. One local community clinic reported recently that 70 persons were awaiting treatment, with patients being added to the list faster than entering into treatment; another clinic had a waiting list of 70 persons, with 12 additions made each month to the list; a hospital outpatient clinic had stopped taking new patients, with 18 patients awaiting treatment; in still another clinic 40 persons were awaiting treatment on a list which in May had been revised to eliminate persons no longer interested in receiving services. Since January this particular list had increased at a rate of about 5 per month.

The Department of Public Health has maintained an adult mental health clinic since 1946. Until recently, however, the staff of the adult clinic was also assigned duties in the child guidance clinic, which resulted in some administrative and operational confusion between the two. The adult unit is currently being reorganized to offer distinctive services to patients over 18 years of age. The professional staff of the Adult Mental Health Clinic is now composed of 1 psychiatrist, 1 psychologist, and 1 psychiatric social worker. As a step toward meeting the deficiency of clinic services for adults, the Department recently has proposed to add 1 more psychiatrist and a social worker to the present staff.

Home visits in emergencies. A need yet to be adequately met in this community is the provision on an organized basis of the so-called "crisis-consultation" in the home. An occasion arises for psychiatric consultation in the home when the behavior of a family member is so disturbing as to be of great concern, yet not productive of any breach of peace or threat. Although home consultation may be necessary to gain admission for the acutely disturbed member to the hospital psychiatric service, medically indigent families cannot afford the customary fees. In Amsterdam, Holland, the Department of Health has provided such service for many years.[4] Here the observation has been made that many "crises" are not appropriately settled by hospital admission, but rather by some other measure, unknown to the family. Two possibilities in this type of consultation service may be viewed: that proper admissions to psychiatric hospital services may be facilitated, and that improper admissions to the hospital may be avoided by supplying useful advice and help to the disturbed family. In the opinion of Dr. A. Querido, who administers the program in Amsterdam, "one psychiatrist in this service is more effective than the whole personnel of a fifty-bed ward."[5] A budgetary allowance has been requested to allow the Department to enter into the necessary contractual arrangements to provide physicians for such examinations in emergency situations. Interest in this as a possible joint venture has been expressed by representatives of the D. C. Association for Mental Health and the Washington Psychiatric Society.

After-care program. The lot of the recovering mentally ill patient has received renewed attention in response to the effective use of tranquilizing drugs in hospitals. Among the possible results of the effectiveness of the new pharmacologic adjuncts to psychotherapy are included shortened expectance of individual hospitalization, increased release rates, more prolonged remissions, and decline in readmission rates. All of these possibilities would act to the advantage of the hospital, its staff, to patients, their families and the community.

Residents of the District of Columbia are concerned that appropriate facilities do not exist for the follow-up and rehabilitation of patients ready for return to the community. Therefore, with the encouragement and concurrence of the Superintendent of St. Elizabeths Hospital, plans are being prepared to meet this need of a new program. This will provide clinical services not now available on an organized basis to two classes of patients: those successfully completing a period "on visit" from the hospital (during which public health nursing services may have been utilized) and those who may be discharged directly from the hospital without having been placed "on visit." This operation requires the establishment of a new clinical team. The team would be composed of a psychiatrist and 2 psychiatric social workers with supportive clerical staff.

Based upon analogous efforts of public health nursing in other fields, the public health nurse may well be able to provide a type of service which so long has been wanting in the field of mental illness as related to public health practice. With the recent acquisition of a mental health nurse consultant, the Department is now in a position to increase its efforts to design a program that will utilize the public health nurse in follow-up services. With the additional clinic staff, envisioned above, the Bureau of Public Health Nursing can be encouraged to venture into this new field, which has been favorably reported from pilot projects in Georgia,[6] Kentucky,[7] and Maryland.[8]

Alcoholism. A critical health issue is that of chronic alcoholism. The Department of Public Health in San Francisco recently observed that chronic alcoholism is a major contributory factor in deaths from cirrhosis of the liver, now ranked fifth among the major causes of death in that city.[9] In the District of Columbia too, cirrhosis of the liver is the fifth ranking cause of death among the population 45 to 64 years of age.[10] It has been estimated that there are 50,000 alcoholics here. Since the inception of the clinic of the Alcoholic Rehabilitation Division, over 5,000 individuals, or about 10 per cent of the estimated number, have been interviewed. Although it is recognized that many problem drinkers will refuse to accept psychiatric treatment, a larger number might seek help if adequate staff and suitable facilities were available for more treatment. Since 1954 the professional staff of the Alcoholic Rehabilitation Division has been markedly reduced in number. This is shown by the difference in professional staff hours available: 27,560 in 1953, 13,250 at the present time. As a result of attrition, with available staff time cut approximately in half, the Division has attempted to continue to handle the caseload by reducing the number of social histories and psychologic studies; increasing group therapy, at the expense of available time for individual therapy, to 11 active groups meeting once a week; extending the length of the interval between individual therapy sessions.

Inpatient care is also an urgent need in the treatment of alcoholism in the District of Columbia. The Committee on Prisons, Probation and Parole recently observed that a "half-way house" is lacking in the District of Columbia. The suggestion has been made that a facility for the care of alcoholics and others may be provided by remodeling the old psychiatric buildings at D. C. General Hospital.[11]

Alcoholic rehabilitation funds. Under the present provisions for financing the alcoholic rehabilitation program of the Department of Public Health, a great handicap exists. Funds for the program come only from a 6 per cent levy on liquor license revenues.[12] This has resulted in a virtual ceiling imposed upon the budget for the program, and with diminished purchasing power the effect has been to depress services. Removal of this unrealistic and inflexible condition is necessary before any expansion can occur. As a first step in the effort to increase our effectiveness in the field of alcoholism, it has been proposed that steps be taken to allow the expenditure of funds other than the "earmarked" revenue. When this has been accomplished the clinic can be turned in the direction of the level of operations enjoyed in 1953–54.

Law enforcement services. The Legal Psychiatric Services Division provides services to the Probation Offices of the District and Municipal Courts, the Board of Parole, the D. C. Department of Corrections, the Judges of the District Court; to a limited degree, it engages in the follow-up of noncriminal drug addicts discharged from U. S. Public Health hospitals and private institutions. At present the clinic is staffed with 2 psychiatric teams, each having 1 psychiatrist, 1 clinical psychologist, and 1 social worker. There is no other resource which renders such service to the law enforcement agencies of the District of Columbia. Because of the relatively small capacity of this division, agencies have been limited in the number of referrals permitted.

Responsibility has been delegated the clinic chief for the physical examination of noncriminal drug addicts who return to the District of Columbia after their release from the U. S. Public Health Service Hospital, Lexington, Kentucky. The purpose of examination is to determine whether a former user of drugs has reverted to their use. Although the present law[13] relating to addicts is thought to be a good beginning toward rehabilitation, no plan yet exists for a follow-up program which includes treatment. The District of Columbia is expected to provide its own inpatient treatment service by July 1958, at which time the follow-up program may become a function of the service to be established at D. C. General Hospital.

To increase the services of the Legal Psychiatric Services Division to the law enforcement agencies, the addition of 2 psychiatrists, 1 psychologist, and 1 psychiatric social worker have been requested for fiscal year 1959. This will enable the clinic to expand the clinical services now available as well as to offer some treatment when indicated.

Children's services. One of the recommendations in the "Mental Health Survey" dated December 1952 was to "increase the available mental health clinic facilities for the care of children." The same report indicated the advisability of making "increased treatment services available to the Juvenile Court for emotionally disturbed children."[1] In "Mileposts to Health" (1953),[14] the following statement is made with regard to the availability of services: "The maximum use of meager facilities available in the District of Columbia is an insufficient answer to the obvious size of the needs and the readiness of the people who want to use them." This statement is as true now, 4 years later, as it was at that time. For well over a year one community clinic has had a waiting list upon which, at the present time, there are names of 50 children. Some of the children have been on this waiting list since March of 1956. Another well-established clinic for children discontinued intake of children in February of this year; in June the number of children still on the waiting list was 10, all of whom were expected to be started in treatment by November. A recently established clinic opened its services in January with a waiting list of 40 families in need of services. By last June this newly established resource had a waiting list of 70 with approximately 10 per month being added to the list. Still another community facility finds that there is a delay of from 1 to 2 months before a child can be placed into a group therapy situation, which is practically the only treatment service provided by the staff of that organization.

D. C. Child Guidance Clinic. According to the survey in 1952 the Child Guidance Clinic of the Department of Public Health had 44 children and 30 parents on waiting lists for therapy. In June of this year it had a list of 61 parents and 68 children. There has been a waiting period of from 9 to 12 months between the diagnostic evaluation and the institution of treatment. The clinic recently has had to restrict admissions for diagnostic evaluation to emergencies and referrals from agencies of the District of Columbia.

The facilities of the D. C. Child Guidance Clinic recently have been remodeled to provide for a more adequate playroom, conference room, and observational facilities. Active recruitment is under way to obtain the services of a qualified child psychiatrist to direct the clinic. Reorganization of the staff assignments to limit activities to the field of child guidance is under way.

Consultation to schools. A psychiatric team is now detailed to the public schools in order to provide the following services: clinical consultation on special cases referred by the Department of Pupil Appraisal, Study and Attendance; mental health consultation to the Department of Pupil Appraisal, Study and Attendance and to the principals, counselors and teachers of the individual schools; and in-service training for various groups within the school system.

This staff is composed of a clinical psychologist detailed to the team by the schools and a psychiatrist plus 2 social workers from the Department of Public Health. Their services are directed at helping school personnel in the diagnosis and disposition of difficult cases by providing psychiatric team consultation. They will assist the administration of the schools in evaluating children who are experiencing difficulties of major importance. In cases in which exclusion is being considered, a psychiatric evaluation will be made available to the school personnel, who may use it in preparing administrative recommendations. Community resources will be sought to assist, on a planned basis, children who must be excluded because of defective intelligence or serious behavior disturbance. A pilot program of mental health consultation to school personnel is being prepared for introduction. This program will be aimed at providing teacher personnel with an additional mental health resource for enhancement of their teaching performance.

Proposed added services In order to provide for more adequate services to the community in meeting the needs of its children, it has been proposed by the Department of Public Health that the following be accomplished: increase the professional and supportive personnel of the Southwest Health Center Clinic to make one completely staffed mental health team by the addition of 1 psychiatric social worker and 1 secretary; increase the professional and supportive personnel of the Department's Child Guidance Clinic to make one completely staffed mental health team by the addition of 1 psychiatric social worker and 1 psychiatrist; add one complete mental health team to be assigned in the Northeast section of the city. The effect of the above additions will be to provide 4 fully staffed mental health teams to be directed toward meeting the needs of the community for child guidance work.

Administrative problems. At present the Department of Public Health has 4 divisions which are concerned primarily with some aspects of mental health within the Bureau of Disease Control. These divisions are (1) the Psychiatric Services Division which coördinates professional administrative activities of the other divisions, and plans and develops new programs, (2) the Mental Health Division which offers outpatient services to both children and adults, (3) the Alcoholic Rehabilitation Division, and (4) the Legal Psychiatric Services Division.

The Department will propose shortly that the 4 divisions be organized into a Bureau of Mental Health to provide better execution of responsibility and better conduct of program. In reorganizing its staff so that departmental planning may proceed at the top administrative level, the mental health program may be expected to develop in proportion to the needs. The Chief of the Bureau of Mental Health will have a consultative staff to advise him in the formulation of program. Consultants in clinical psychology and psychiatric social work will be drawn part-time from the existing personnel assigned to clinics until their positions can be confirmed on a full-time basis. A program consultant has been added to the staff already.

The Bureau staff will be charged with the responsibility for setting up machinery to constantly study the mental health needs of the community and to plan programs to meet those needs and the changing needs of the future. The Bureau staff would strive to provide a body of information relative to the needs of the community in the field of mental health. Such data would have to be revised continuously and correlated wherever possible with an assessment of accomplishment, difficult as this may be to determine in the field of mental health. Information so acquired would allow the focus for efforts in the promotion of health, as well as for preventive measures, to be altered, toward an eventual improvement in results. Viewed in this way, research and statistical studies in conjunction with other sections of the Department could supply a service to the community which has long-range value in the promotion of mental health.

Recent accomplishments. Although the current administrative structure is not the best to permit the Department to discharge its responsibilities to the community in the field, a number of accomplishments have been recorded during the past year, with the establishment of Psychiatric Services Division. These have been possible because of the willing collaboration with the administrative division of the professional staff of the three operating divisions. These include:

1. Establishment of greater coördination between various divisional activities within the Bureau of Disease Control
2. Preparation of a unified mental health budget for fiscal year 1959
3. Participation with nondepartmental outpatient clinics in the introduction of a community statistical reporting system
4. Collaboration with the public schools in establishing a new joint undertaking to increase psychiatric services to children
5. Designing a new proposed activity for the follow-up of recovering patients, utilizing the public health nurse
6. Realignment of the clinical activities of the Mental Health Division to improve the program and plans for children and adults.

BIBLIOGRAPHY

1. Shaw, G. H.: Mental Health Survey. D. C. Mental Health Survey Committee (December 1952).
2. Pasamanick, B., Roberts, D. W., Lemkau, P. V., and Krueger, D. E.: Am. J. Pub. Health, 1957, **47**, 923.
3. Senate of the State of California, Interim Committee on the Treatment of Mental Illness: Second Partial Report. Community Mental Health Centers (December 1956), p. 197.
4. Querido, A.: Proc. Roy. Soc. Med., 1955, **48**, 741.
5. Querido, A., in The Elements of a Community Mental Health Program. New York: Milbank Mem. Fund, 1956, pp. 158–81.
6. Rice, G. V., Jr.: Am. J. Pub. Health, 1957, **47**, 210.
7. Kingcade, M.: Follow-up of discharged mental hospital and clinic patients, presented at the 84th Annual Meeting of the American Public Health Association in Atlantic City, N. J., November 12–16, 1956.
8. Peeples, W. J., in Panel discussion on community follow-up program for mental hospital patients, presented before the Public Health Section of the Southern Medical Association in Washington, D. C., November 13, 1956.
9. San Francisco Department of Public Health: Weekly Bulletin, July 22, 1957, cited in California Alcoholism Review (August 1957).
10. Finucane, D. L.: Your Health Department, Vital Statistics Summary 1955, D. C. Department of Public Health (1957), p. 11.
11. Board of Commissioners, D. C.: Report of Committee on Prisons, Probation and Parole (April 1957), p. 136.
12. Public Law 347, 80th Congress, approved August 4, 1947 and amended May 27, 1949 (63 Stat. 135).
13. Public Law 764, 84th Congress, approved July 24, 1956.
14. Leahy, W. E., Chairman, General Survey Committee: Mileposts to Health—A Summary of the District of Columbia Survey of Medical Care for the Indigent and Related Services (1953).

PREDNISOLONE IN THE MANAGEMENT OF RHEUMATOID ARTHRITIS*

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THE BENEFICIAL effects of steroid therapy in relieving the acute inflammatory signs and symptoms in cases of rheumatoid arthritis are now so well established as to be considered axiomatic. However, the undesirable metabolic reactions which may be attendant upon their use in therapeutic dosage are common enough and serious enough to make the average physician pause before using them as routine measures in this disease. Although the introduction of prednisone and prednisolone† was at first followed by a wave of enthusiastic use with the belief that the side-reactions had been eliminated, it is clearly evident from the recently reported experience of several workers[1-4] that such reactions are still all too common.

The study reported here was undertaken to determine if prednisolone might be used as an adjunct in the treatment of rheumatoid arthritis at dosage levels sufficient to give some relief from the inflammatory reactions, but in doses small enough to reduce the occurrence of side-reactions to a point where they would not interfere with the general progress of the patient.

MATERIALS AND METHODS

It was possible to evaluate the influence of prednisolone on rheumatoid arthritis in a total of 87 patients who ranged in age from 14 to 79 years, with a median age of about 55 years. The disease had been present for longer than 5 years in more than half of the patients and longer than 10 years in more than a fourth of them.

With the exception of a few patients with recent activity who were treated initially with prednisolone, all of the patients reported here had been under observation for long periods of time prior to this study, and their response to different therapeutic measures, including other corticosteroids, was fairly well known.

During this study, oral prednisolone was substituted for other corticosteroids in each patient, but local injections of hydrocortisone were frequently continued. Other measures, including chrysotherapy and sodium restriction, were continued when indicated.

Particular effort was made to maintain these patients on the least amount of prednisolone consistent with adequate control of manifestations, and to strike a balance between desirable and undesirable steroid effects. Thus, the prednisolone dosage in each patient, calculated from previous steroid requirements, was continually adjusted until the optimum daily amount was arrived at.

Radiologic studies made both before and after therapy with prednisolone made it possible to evaluate the effect of prednisolone on the development of spinal osteoporosis in a number of these patients.

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* From the Rheumatology Clinic, Georgetown University Hospital, Washington, D. C.

† The prednisolone used in this study was kindly supplied as Sterane by Dr. M. William Amster, Pfizer Laboratories, Brooklyn, New York.

RESULTS

When the optimal dosage for each patient had been achieved, the therapeutic effect provided by prednisolone was judged to be excellent in 28 of the patients (32 per cent), good in 41 (47 per cent), fair in 15 (17 per cent), and poor in 3 (4 per cent). The distribution of results according to the optimal dosage in each case, shown in table 1, confirms that there is a wide range of variation among patients in dosage requirements and that there is no one optimum dosage of prednisolone for all or even for most patients, although a slight majority of this group was maintained on 7.5 to 10 mg. of prednisolone daily in divided doses. In 5 patients, all of whom responded well to therapy, it was possible to reduce the dosage over 2 to 6 months to zero, indicating a complete remission of the rheumatoid arthritis.

TABLE 1

Effects of Prednisolone in Treatment of Rheumatoid Arthritis

Optimal Dose (mg./day)	Number of Patients	Result				Side-reactions
		Excellent	Good	Fair	Poor	
0*	5	3	2			
5	10	6	4			1
7.5–10	46	14	21	10	1	10
12.5–15	21	3	13	3	2	14
>15	3		1	2		2
TOTAL	85	26	41	15	3	27

* Remission of joint symptoms after 2 or more months of therapy.

In large part, the optimal dosage of prednisolone was determined not by its therapeutic effect but rather by the incidence and severity of side-reactions. As indicated in the table, the incidence of undesirable effects was quite sensitive to the prednisolone dosage employed. Thus, with increasing dosage the frequency of side-reactions increased from 10 per cent at a level of 5 mg. daily to 22 per cent at a level of 7.5 to 10 mg. and 67 per cent at higher levels. For the group as a whole, side-reactions occurred with a frequency of 32 per cent.

In many cases these side-effects were tolerable for the sake of control of joint symptoms. It was usually possible, for example, to maintain the prednisolone dosage unchanged in spite of a moderate degree of facial mooning, the most frequently observed side-reaction in this group, which occurred in 11 patients. Other reactions which were usually tolerated included abdominal bloating (7 patients), edema (5 patients), and gain of weight (3 patients). Occasional reactions included excessive loss of hair, dryness of skin, petechiae, hirsutism, excessive sweating, constipation, local deposit of fat, and muscular weakness.

Reactions were severe enough to require complete withdrawal of prednisolone in 4 patients, all of whom developed severe gastrointestinal symptoms within a week after starting the drug. Therapy was continued in spite of slight gastrointestinal symptoms in 6 other patients, all of whom continued to receive moderately high amounts of the steroid with no serious sequelae.

During the course of the study it became apparent that none of the patients had exhibited any signs of active osteoporosis while they were receiving prednisolone, whereas experience had led us to expect such signs occasionally in a group such as this. It was therefore considered worthwhile to estimate radiologically the extent of osteoporotic change among patients receiving prednisolone.

Of 23 patients studied radiologically for spinal osteoporotic change, 16 showed no evidence of any structural change in the vertebral column. Inactive or arrested changes, with no evidence of activity since prednisolone therapy was started, were present in 4 patients; minimal changes of a questionable nature were present in 2.

Definite evidence of recent osteoporotic activity was noted in 1 patient, a 61-year-old woman who had a 12-year history of rheumatoid arthritis with evidence of mild osteoporosis shortly before being treated with prednisolone. After 6 months of prednisolone therapy with doses ranging from 5 to 15 mg. daily there was radiologic evidence of recent partial collapse of the bodies of several thoracic and lumbar vertebrae. However, the patient experienced no symptoms referable to this area, and her clinical response to prednisolone was judged to be good.

The effect of prednisolone could be compared satisfactorily with that of prednisone in patients who were switched directly from prednisone to prednisolone at the start of the study, or who received prednisone and prednisolone alternately for a time. Suitable circumstances for such a comparison were present in 19 patients in this study. In these patients prednisolone was believed to be superior in 13 and prednisone in 3; no distinction was observed in 3.

DISCUSSION

The results obtained in the study reported here confirm, in general, the earlier reports concerning prednisone and prednisolone in the treatment of rheumatoid arthritis. In most respects the incidence and severity of side-effects encountered did not differ materially from previously published estimates.

In two respects, however, the results of this study suggest additional distinctions among the corticosteroids and provide a further basis for the rational choice of therapeutic agents.

First, there is tentative evidence that prednisolone may be superior to prednisone in most patients. In 16 of the 19 patients in which a comparison could be made a definite distinction was made between these two compounds on the basis of clinical judgment or preference on the part of the patient. This, in itself, is evidence of their nonequivalence; the fact that prednisolone was thought to be superior in 13 instances while prednisone was thought to be superior in only 3 is highly suggestive of a therapeutic difference, although this evidence is by no means conclusive.

Second, the radiologic evidence concerning spinal osteoporosis indicates that it may be possible to maintain patients adequately on doses of prednisolone which do not influence skeletal maintenance.

It is generally recognized that the danger of pathologic fracture due to osteoporosis is increased during corticosteroid therapy, especially among postmenopausal women and patients with rheumatoid arthritis. Henneman and his colleagues[5] consider osteoporosis the most common serious consequence of prolonged cortisone or hydrocortisone therapy, and a number of cases have been reported in detail in which pathologic fractures of the spine occurred during corticosteroid therapy.[6 9]

Unfortunately, published reports do not estimate the incidence of steroid-induced skeletal changes with regard to any of the available corticosteroids. However, recent reviews of osteoporosis[10, 11] agree in concluding that its frequency may be correlated with the anti-anabolic activity of steroids. Furthermore, Eisenstadt and Cohen[9] reason that because osteoporosis is customarily present in adrenal cortical hyperfunction, it is probably present to some extent during corticosteroid therapy whenever drug-induced symptoms are seen. Our own clinical experience has been consistent with their findings, especially with regard to postmenopausal women and patients with rheumatoid arthritis.

These considerations suggest that, while a certain amount of osteoporotic activity may be the usual consequence of corticosteroid therapy, the various steroids may differ in their ability to induce osteoporotic activity. For this reason the findings in this study may have significance even though they cannot be considered conclusive in themselves. Of the 23 patients examined for evidence of osteoporotic activity during prednisolone therapy, only 1 showed evidence of vertebral collapse, while questionable minimal findings were present in 2 others. With 1 exception, all 23 patients had received substantial amounts of prednisolone daily for at least 4 months, the average duration of therapy being 8 months; furthermore, over half of the patients in question were postmenopausal women. It is a reasonable conclusion from this evidence that prednisolone was associated with an unusually low incidence of skeletal change in this series of cases.

SUMMARY

Prednisolone was employed together with other measures for periods up to 1 year in the management of 87 patients with rheumatoid arthritis. It provided a satisfactory degree of control in 79 per cent of the patients and was considered superior to prednisone in most of 19 patients in whom comparison was possible.

Side-reactions were observed in 32 per cent of the patients but were sufficiently serious to warrant discontinuing prednisolone in less than 5 per cent.

Vertebral damage due to progressive osteoporosis was detected radiologically in only 1 of 23 patients who had received prednisolone for several months. This incidence of osteoporosis was regarded as lower than that expected on the basis of experience with other corticosteroids.

BIBLIOGRAPHY

1. Boland, E. W.: Ann. New York Acad. Sc., 1955, **61**, 349.
2. Boland, E. W.: M. Clin. North America, 1957, **41**, 553.
3. Bollet, A. J.: J. Michigan M. Soc., 1956, **55**, 278.
4. Rosen, P. S., and others: Canad. M. A. J., 1956, **74**, 501.
5. Henneman, P. H., Wang, D. M., Irwin, J. W., and Burrage, W. S.: Abstr., J. Clin. Endocrinol., 1955, **15**, 858.
6. Demartini, F., Grokoest, A. W., and Ragan, C.: J.A.M.A., 1952, **149**, 750.
7. Teicher, R., and Nelson, C. T.: J. Invest. Dermat., 1952, **19**, 205.
8. Curtiss, P. H., Jr., Clark, W. S., and Herndon, C. H.: J.A.M.A., 1954, **156**, 467.
9. Eisenstadt, W. S., and Cohen, E. B.: Ann. Allergy, 1955, **13**, 252.
10. Finlay, J. M.: Canad. M.A.J., 1956, **74**, 823.
11. Bartter, F. C.: Am. J. Med., 1957, **22**, 797.

President's Page

DISABILITY AND WORKMEN'S COMPENSATION

It is estimated that 250,000 people are disabled by accident and disease each year. This represents a loss to our economy of millions of man hours, and this growing army of involuntary unemployed costs in the neighborhood of five hundred million dollars for public assistance. In May of 1957, in observance of the tenth year of operation of the President's Committee on Employment of the Physically Handicapped, President Eisenhower stated:

> "In finding good men to fill hard jobs, we know it is a person's ability, and not his disability, that counts. I remember once, during the War, asking for a particular man for a certain assignment. He was just the man I needed but the doctors would not recommend him because they said he had great difficulty in walking. That made no difference to me. I needed the man's head and heart and if he could not walk to work, I knew he would find some way to get there. And he did. He came, and took the job and filled it with distinction."

In a recent editorial in the magazine *Performance*, Philip M. Talbott, President of the Chamber of Commerce of the United States, wrote:

> "One of the major problems confronting business in the near future is likely to be the question of how to obtain sufficient manpower. Not ordinary manpower, but the kind that is highly skilled, with brains behind it—the kind which the physically handicapped can provide as well as any other group.
>
> "Automation devices, radar controls, certain accounting procedures, and other recent innovations are business operations requiring more brains than brawn, and the use of them is steadily increasing. Brains and skills are running short. Military and business leaders are quite frank in wondering where the needed quotas are going to come from.
>
> "To an extent greater than ever before, the right men and women for the jobs will come from the physically handicapped."

A couple of years ago I had the privilege of being present at a dinner sponsored by the American Federation of the Physically Handicapped. Among the 200 present were official representatives with high offices in Government, Industry and Labor. They were unanimous in voicing support of employment of the handicapped.

But there are obstacles to hiring handicapped workers, and Workmen's Compensation is one of the chief instruments which tends to bar them from jobs. How is it that laws designed to protect the working man sometimes operate to his detriment? In 1925 Supreme Court Justice Sutherland wrote: "Workmen's Compensation legislation rests upon the conception that the injured workman is entitled to compensation for an injury sustained in the service of an industry to whose operation he contributes his work as the owner contributes his capital." Many courts hold that if a previously disabled worker is further disabled on the job, his employer is responsible for the entire resulting disability. For this reason, some employers readily admit that they do not hire or keep disabled workers because of consequences flowing from Workmen's Compensation.

Ordinarily, we think of the handicapped as those who have sustained the loss of a hand, arm, leg or eye. If we include the individuals with deafness, epilepsy, diabetes, arthritis, cardiac disease, poliomyelitis and multiple sclerosis, we have a formidable list which affects all of us who practice medicine.

In a future article I will discuss the Second Injury Fund legislation which is being developed to meet the problem affecting employment of disabled workers.

James W. Watts

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Editorials

D. C. PUBLIC HEALTH—A YEAR'S STEWARDSHIP

One year ago, when I assumed my present office, I stated, "I am confident, with coöperation between the Department and the various community agencies, we will attain the success that we are all striving for." At that time I also said, "The Department is faced with a challenge, to progress or to remain static."

I can assure you that during the past 12 months nothing in the Department has remained static. Whether we have made progress depends upon what we define as progress. I believed that it was necessary for me to become intimately acquainted with each bureau as quickly as possible. In order to accomplish this I have spent an unusual amount of time on details. As a result of this, changes that some may have believed urgent have not occurred. We have thought that changes should not be effected unless we have reasonable expectation of achieving improvement.

Before any changes were recommended it was thought that a rather detailed study of the

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia.

various programs should be undertaken. Several such programs have been reviewed or are in the process of study. Most of these program reviews have been conducted by the Public Health Service or the Children's Bureau (U. S. Department of Health, Education, and Welfare). Many recommended changes in various areas have been accomplished. Some have been delayed for further consideration.

Most noticeable change has occurred in the Bureau of Food and Public Health Engineering. Here rather extensive reorganization has been made, and, with certain changes in procedures, it is expected more efficient accomplishment will result.

Regulations affecting public health have been receiving considerable study. "Regulations Governing the Source and Sanitary Control of the Processing, Handling, Packing and Distribution of Shellfish in the District of Columbia" are now in effect for the first time. Other regulations are being prepared or rewritten. These include Hospital Regulations, Communicable Disease Regulations, regulations governing foodhandling establishments, among others.

Studies are being conducted with a view to recommending changes in legislation in certain areas to bring the statutes more in line with present-day practices. An example of this is the legislative change necessary to allow for the expanded operation of tissue banks.

Much time and effort have been spent studying the problems of D. C. General Hospital. Organizational problems as well as budgetary problems have been under close scrutiny. This study takes cognizance of the relationship of D. C. General Hospital to the three medical schools (Georgetown, George Washington, and Howard Universities). It has been necessary, therefore, to have a series of conferences with the faculties and deans of the three schools. These conferences are continuing, and we are confident that considerable improvement will be achieved.

A "Survey of Hospital Facilities"* by a private firm was conducted during the past year. This was a very extensive study, the results of which became available only this past December. Many contemplated changes have been held in abeyance until this study was completed so that the full knowledge of all studies would be available before changes were instituted. This report is so broad that it probably will require months to study all of its implications. Recommendations concerning limited areas will probably be forthcoming in the near future.

Another area that has occupied a great deal of time is a study of the problem of mental illness. Recommendations for the establishment of a Bureau of Mental Health have recently been submitted to the Commissioners of the District of Columbia.

Thus, while progress may appear to be slow in the overall, change must be built on a solid foundation. It is necessary before instituting changes to be sure we are building on a firm base. I am confident that the Department is moving ahead, building slowly but strongly, and that in due time it will achieve the success for which all of us are striving.

At the beginning of this article I referred to my remarks of a year ago, expressing my confidence in receiving coöperation from the various community agencies. The support and coöperation promised me by The Medical Society of the District of Columbia, the Dental Society, and the numerous community agencies have been all that could have been hoped for. All groups have been most generous, giving of their time and talents. This year has been most rewarding and gratifying, and I am most grateful for the support I have received.

DANIEL LEO FINUCANE, M.D.
Director of Public Health for the District of Columbia

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* EDITOR'S NOTE: The complete Summary Report of this Survey is being published in the ANNALS in 2 sections. Part I appears in this issue.

MUSCLE RELAXANTS

The Need for a Drug of Intermediate Duration

Full utilization of intravenous methods of drug administration constitutes the greatest technical advance of the last decade in anesthesiology. Muscle relaxant drugs are the most important pharmacologic additions in this field. A full appreciation of intravenous technic for drug administration has contributed to the growing popularity of muscle relaxants. The difficulties in many areas of maintaining a friendly attitude toward regional anesthesia, especially spinal, has also enhanced the value of relaxant drugs.

The complete purpose of anesthesia can be met only by giving comfort and even pleasure to the patient while providing for the surgeon good operating conditions, including muscular relaxation whenever needed, all with maximum safety. The appeal to the patient of smooth, pleasant induction of anesthesia by the intravenous use of barbiturates has become so great that this technic has become a part of most popular approaches to general anesthesia. The pharmacologic deficiencies of the barbiturates in the provision of good anesthesia have not diminished their popularity, but instead have spurred the efforts to find better muscle relaxants to round out the intravenous technic.

The limitations of the intravenous technic itself center, first, around the fact that once these drugs are introduced they cannot be withdrawn but instead must be metabolized in the tissues of the patient. In addition, there is no restraint to overdosage except on the part of the operator; the patient has no reflex resistance to overdosage. Furthermore, true drug antidotes are inadequate or ineffectual. On the other hand, inhalation drugs are not metabolized in the body but can be removed unchanged and can even be removed by artificial respiration. During spontaneous breathing continued overdosage itself is opposed by the respiratory depression which overdosage produces. Thus, inhalation anesthesia is always basically safer than intravenous anesthesia. However, relatively unpleasant inductions with inhalation drugs and their slowness of action which reduces their flexibility are reasons for anesthesiologists to search further for the ideal drug or method.

In the absence of anything approaching a single ideal drug in anesthesiology combined drug effects are almost universally employed. Investigation continues into the effects of drugs of many classes, usually involving their specific properties, as part of a total system of anesthesia management.

Curare was an outstanding addition to drugs for anesthesia because it made possible the use of the intravenous route of administration not only for induction but for profound relaxation. Also, there seemed to be a possibility of antidotal control for overdosage. However, the experience which came with widespread usage demonstrated clearly that its effect was too prolonged in many instances and could not be completely nullified by the use of antagonistic drugs. This produced real danger and occasionally even tragedy and thereby resulted in some curtailment of its use.

The search for a muscle relaxant of short duration has, up to now, been culminated by the development of succinylcholine. For a long time it was thought that the shorter the duration of action the better—that we could not obtain a drug with too evanescent an action. Now, however, it is becoming apparent that we actually can have too short an action, and it appears likely that more mature judgment will be to the effect that, except for special needs, succinylcholine itself may be too fleeting in its relaxant action. Already its most ardent proponents recognize the great difficulty in titrating rate of administration to produce adequate relaxation without respiratory depression. The constancy of attention by the anesthesiologist to obtain this finely graded result may distract him from other duties to the patient. This has led many to go deliberately into an apneic technic with full control of respiration by the anesthesiologist, although it is recognized that in the absence of respiratory effort by the patient it is not possible to know the amount of overdosage of the relaxant drug which is maintaining the muscle paralysis.

Inhaled, non-metabolized drugs are still the safest ones in anesthesia. Voluntary effective respiration still constitutes not only the best sign of depth of anesthesia but also is an outstanding safeguard against derangements in acid-base balance. It would seem to be highly desirable to preserve these benefits in routine anesthetic practice. This becomes the most cogent argument for developing a muscle relaxant of intermediate duration not requiring such careful titration as succinylcholine or having such persistent action as curare. Such a drug should possess action to summate easily the effect of inhalation drugs, especially ether. Such a drug not only should fit into but should actually require a good inhalation anesthesia technic for its own best use. The proper promotion of such a drug might help restore the value once attached to the ability to "give a good anesthetic" rather than the simple injection of a new miracle drug. The enhancement of good practice in anesthesia with emphasis on professional skill could have more importance than the specific attributes of the drug itself. It is to the wider dissemination of knowledge and to the practice of the best technics in their specialty that anesthesiologists must be dedicated.

D. S.

THREE-DIMENSIONAL PROGRAM OF THE HEART ASSOCIATION

Sensitivity to the scope and urgency of a problem is directly related to depth of comprehension of all its components. Hence physicians more than any other group are acutely aware of the mounting toll of lost lives, human suffering, wasted productivity, financial depletion, and personality deterioration that comprises the heart disease problem.

Few physicians have to be reminded that 1 out of every 16 Americans suffers from some form of cardiovascular disease; that in 1956, 54 per cent of all deaths were due to diseases of the heart and blood vessels. The actual impact of heart disease on our national economy, however, is not as thoroughly appreciated. Some idea of the force with which our foremost national health problem, heart disease, hits the national pocketbook may be gained from the following figures: cardiovascular disease causes an estimated loss of 150,000 man-days of production in the United States each year, representing a 3-billion-dollar loss to industry, and a cost of 400 million dollars to the Government in lost tax receipts.

Founded in the early twenties as a professional society by physicians, the American Heart Association during the past decade reorganized as a Voluntary Health Organization, dedicated to research, education and community service.

During February, "Heart Month," millions of Americans voluntarily contribute to the Heart Fund, showing their desire to participate in the 3-dimensional program that your Heart Association conducts throughout the year.

Translated into terms of activities of the Washington Heart Association, what does this mean? It means support for local scientists pursuing investigations in diseases of the heart and blood vessels. You have read many of their reports in this journal. It means a vigorous program of lay education, effectively combating the misconceptions and fears, bred of ignorance, that are often as incapacitating as heart disease itself. It means speedy, accurate transmission of reports on new scientific discoveries from the laboratory to the practicing physician. It means availability to patients with cardiovascular disease of a well-balanced rehabilitation pro-

DR. KONZELMANN HONORED
IN PHILADELPHIA

Dr. Frank W. Konzelmann (right), named "Clinical Scientist of the Year" by the Association of Clinical Scientists, accepts a silver goblet from Dr. F. William Sunderman, President of the Association, at its meeting in Philadelphia, December 13-15. Dr. Claude P. Brown (center), of Philadelphia, was also honored for his contributions to the furtherance of clinical science.

gram. The benefits of the rehabilitation program are available to the patient only at the request of a physician. The following details are given with the hope that more physicians, aware of its value, will refer patients for this service.

The many social, economic, and personal complications that follow in the wake of heart disease create a situation too complex to permit solution even by the most conscientious and skillful physician. Severity of disease, degree of intelligence, extent of ambition, possession of skills, emotional stability and motivation are only a few of the variables that influence our aims in planning rehabilitation for an individual patient. For some cardiacs the goal may be complete rehabilitation in terms of employment in industry and for others in terms of family or social status. In the advanced cardiac, rehabilitation may refer only to maintenance of a sense of personal importance in the family group or the security of a small niche in a sheltered workshop.

It becomes quite apparent that, in addition to the services of a qualified cardiologist or internist, rehabilitation demands the assistance of skilled specialists in vocational guidance, occupational therapy, job placement and sheltered workshop, and, above all, social workers who are willing to work with the patient and to stimulate him to develop, conserve, or restore his abilities. Facilities for a comprehensive survey of the cardiac's problem with the view to creating a realistic, workable plan for rehabilitation are available through the Washington Heart Association's Cardiac Rehabilitation Program. Few communities can boast of a service of equal scope. Included in the program are:

1. Occupational therapy for homebound cardiacs.
2. The Occupational Therapy Workshop, which includes facilities for pre-vocational testing and training, as well as estimation of work tolerance in a simulated job environment.
3. The Work Evaluation Unit, which brings the combined thinking of a group of specialists to bear on the patient's problem in order to arrive at a workable plan to suit his specific needs.

Handicapped workers, many with heart disease, made up the major part of the urgently needed manpower reserve in the early 40's. The present state of the international scene suggests that there may be some wisdom in stockpiling reserve manpower against an acute shortage in the event of a national emergency.

Perhaps by reaffirming our confidence in the value of rehabilitating the cardiac we may be able to conserve this important, though often neglected, line of national defense.

Eventual conquest of the heart disease problem through this 3-dimensional program is contingent on progress equal or superior to that of the past decade. Acceleration of the progress can only be assured by the continued moral and economic support of the entire community.

Andrew G. Prandoni, M.D.
President, Washington Heart Association

In and Out of Focus

BY THE OBSERVER

The Nursing Home Situation

Although sporadic efforts have been made to obtain complete information about nursing home facilities and services in the District of Columbia, it is still fragmentary. What is definitely known is that the number of acceptable beds available falls far short of the need. Furthermore, many of the homes do not meet minimum standards of safety and comfort.

A study undertaken by the Health Section of the United Community Services in 1951 showed that many of the homes provided little more than boarding-house care. As to the need, 5.5 per cent of the patients on medical and surgical services in the D. C. General Hospital were medically eligible for a home care program. However, two-thirds had unsuitable homes and, therefore, had to stay in the hospital because no suitable facility for long-term care was available.

On the basis of its findings, in a study of medical care for the indigent in 1953, the Health Department-sponsored General Survey Committee proposed that the following suggestions be explored:

> "The establishment of chronic-disease or other units for long-term care as wings of the general hospitals or in close affiliation with them; the reallocation of beds at (D.C. General) Hospital to make some available for this purpose; further expansion of the infirmary at the Home for the Aged and Infirm; the establishment of new facilities for long-term care, preferably under voluntary auspices.
>
> "Standards of licensing of institutions for long-term care in the community should be developed to provide care of good quality. The regulations governing these standards should be administered with an adequate staff, using an educational emphasis. The experience of existing licensure programs in many states should be drawn upon in the development of a constructive and effective program."

Although there has been some progress since this study was made, the situation today is not far different from what it was.

Nursing homes in the District of Columbia are under the control and supervision of the Department of Licenses and Inspections. Official agencies which coöperate in the enforcement of Housing Regulations are: the Public Assistance Division, Department of Public Welfare; Housing Division and Inspection Division, Department of Licenses and Inspection; the Fire Department; the Bureau of Food and Public Health Engineering and the Bureau of Public Health Nursing, Department of Public Health.

Regulations relating directly to medical care provide for a thorough investigation of the qualifications and character of the individual or individuals who wish to operate a nursing home; the adequacy and safety of the physical facilities; the competence and fitness of the professional personnel employed; and the proper keeping of records relating to the daily bed occupancy, care given, and deaths.

There are also regulations providing for the exclusion of patients with communicable diseases or for their care if they should develop such diseases while a patient, and for the rejection of patients who are violent or dangerous to themselves and to others.

Supervision of inmates by licensed physicians "so that routine and emergency medical care is provided at all times and so that hospitalization can be effected promptly when needed" is also required. The individual has a right to select his own physician if he so desires.

These, then, are some of the regulations of particular interest to physicians. Obviously, they are vital to the safety and well-being of patients. Important as they are, there remains the need for more beds and services at a cost that people of moderate means can afford.

In discussing these and other facets of the nursing home situation, the Committee on Public Health some months ago decided to survey the membership of the Society to ascertain what experiences physicians have had with nursing homes. The Committee will try to learn how many patients physicians have referred to nursing homes during the past year; their observations with respect to environment and services rendered; and, to the extent possible, the cost to the patient.

While it is recognized that this will be a modest contribution to the knowledge of the nursing home situation in the District of Columbia, it may, nevertheless, be an important one. Members are urged to participate in this survey, which is, obviously, of importance to themselves and to their patients.

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Nuisance Calls

The medical profession has been criticized in recent years because physicians are frequently not available in emergencies. This is particularly true, it is said, when the patient does not have a personal physician. Accepting the fact that there is some merit to this complaint, medical societies across the country have attempted to meet the situation by various means, the usual one being the establishment of a telephone emergency call service. Even this hasn't entirely solved the problem to the satisfaction of physicians or their critics.

There are, of course, two sides to every controversy and the emergency call situation is no exception. The fact of the matter is that many of the so-called emergency calls are not emergencies at all. They are the result of emotional upsets, lack of knowledge, or plain cussedness.

Physicians make allowances for the fact that the layman is often unable to determine when and if an emergency exists. He becomes impatient, however, with unreasonableness and stupidity. It is proverbial that a patient may have been sick for several days but the physician is not called until the middle of the night.

The disagreeable caller is demanding, sometimes insulting, and, frequently, poor pay. He is the kind who will get a physician out of bed and, because the patient is somewhat better, lock his home up for the night, put out the lights, and refuse to answer the doorbell; or he may be in his backyard working in his garden but too lazy to go to the physician's office. As every physician knows, these are not imaginary occurrences, but have actually happened.

The real problem in a large city, where many people do not have their own physicians, is the nuisance calls from narcotic addicts, alcoholics and crackpots. The addict and the alcoholic are usually in need of medical attention, but few of them want it. They want the physician's ministrations to quiet their inner turbulence, cure a hangover, or supply them with drugs. The crackpot wants to be heard and, not infrequently, pampered. It is not surprising then that physicians become weary of being charged with failing to do their duty in emergencies.

The Society's telephone exchange, Medical Bureau, has had this problem to cope with ever since it began operation in 1940. It is a tribute to the supervising operators and those under them that, with few exceptions, nuisance calls have been handled without creating ill will.

It is not easy sometimes to distinguish between a bona fide call and one which is not. Not all calls from alcoholics are spurious nor can every call from an addict be dismissed. What may seem to be just another call from one of these unfortunates may be something which should receive immediate attention. So the operator must exercise the best judgment of which she is capable. Here is where experience is valuable, for a miscue can bring criticism, if not worse, not only on herself but on the Bureau.

Experience is, of course, a stern and effective teacher. The operator soon learns to detect the "phony" call. Something tells her when she listens to the request for a physician whether it is genuine or not. Of course, she has had the benefit of considerable information gathered by the Bureau over the years and the reports of physicians who have been "burned." This puts her on her guard.

Some of the methods used by the difficult caller have long since become familiar. There is the long tale of woe, the longer the less believable. There are those who insist that they have connections in high places and want the best of service; the addicts who change their names and addresses frequently but fool no one, certainly not the operators, for their voices are recognizable; the alcoholic who wants the physician to see him in a downtown hotel lobby.

It is the nuisance calls about which the public hears very little. They have to be weeded out so that the valid emergencies can be taken care of promptly. Even then, the physician makes so-called emergency calls which are unnecessary.

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White House Doctors One of the feature articles in MD, *Medical Newsmagazine*, which made its debut a year ago, is entitled "White House Worriers."[1] It struck your Observer as a rather apt title for a dissertation on Presidential physicians.

Any physician responsible for the health of a prominent individual is constantly aware that his ministrations are under close scrutiny. This is especially true when the patient happens to be the President of the United States.

MD states that from "Craik to Snyder, a few medical men in their own way helped to shape American history," but that "on the political scene, a Presidential physician is the unknown factor." Skeptics may accept the political reference with reservations, although records do not support the view that White House doctors have taken a hand in politics.

The century and a half during which physicians have served Presidents covers nearly the whole medical history of the United States, "from the blood-letting of Washington to the electrocardiography of Eisenhower." Illustrative of the professional relationships and medical progress are sketches of selected Presidential physicians who have watched over a President's health in war and peace. These are: James Craik (1730–1814), Philip Syng Physick (1768–1837), Robert King Stone (1822–1872), Benjamin Fordyce Barker (1818–1891), Ross T. McIntire (1889–), and Howard McCrum Snyder (1881–). Drs. Physick, Stone, Barker, McIntire and Snyder were or are members of the Medical Society of the District of Columbia.

Like Dr. Snyder, the present White House physician, Dr. Craik had been closely associated with the President he served before he took office. He was with General Washington in the war against the French and later the British.

By modern standards, Dr. Craik's methods were crude. MD states he "knew no other remedy than blood letting, gargling with vinegar and sage tea, and the application of Spanish Fly (Cantharis, the 'blister bug') to the throat." He treated the President for a variety of respiratory conditions, carbuncles, inflammation of the eyes, and recurrent malaria. His consultants were Drs. Elisha Dick and Gustave Brown. They knew little more than he did.

Dr. Physick practiced during the same period. It appears that he had a recalcitrant patient in President Andrew Jackson: "Wild, and hot tempered, the soldier-lawyer rode roughshod over medical advice, placed his faith in lead acetate for practically any ailment." He was one of a legion of patients before and since who knew better than his physician what was wrong with him. However, he had a wholesome respect for Dr. Physick because of the high regard in which he was held professionally. Nevertheless, he protested: "I can do anything you think proper, except give up coffee and tobacco."

President Jackson suffered from chronic pleurisy due to a bullet lodged in or around the pericardium received in a duel in 1806. Dr. Physick's chief remedy for pleurisy was cupping.

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[1] MD: 1957, **1**, 20 (February).

He also prescribed freely "heroic doses of lead acetate and calomel" to prevent the President's self-treatment.

Dr. Stone was President Abraham Lincoln's personal physician. Lincoln usually ignored his doctor's prescription of shorter work hours and longer bed rest. He suffered from hypochondria, then attributed to defective digestive functions. This contributed to melancholy, which "dripped from the tall gaunt man."

Chronic constipation, a sluggish circulation, a poorly functioning liver, an apparent deviation of the left eye, and a suspected tendency to tuberculosis were conditions for which President Lincoln was treated A remedy prescribed by one of Dr. Stone's predecessors for the President's general condition was "blue pills" (mercury mass).

President Ulysses S. Grant sought out Dr. Barker as his physician. Theirs was a satisfying personal relationship. He treated the President for malignancy of the throat. The treatment consisted of the "application of a solution of muriate of cocaine (4 to 12 per cent) two or three times a day. Potassium permanganate and brewer's yeast were used in gargles, iodoform was applied to the diseased tissue by insufflation."

Most physicians who practiced in Washington before and during World War II know Dr. McIntire personally as an able, conscientious physician who served as a White House doctor during the administration of President Franklin D. Roosevelt. There is no need to comment on the diseases which afflicted President Roosevelt and the therapy used by his physicians, because they are recent and familiar history.

The diagnostic procedures followed and therapy prescribed by Dr. Snyder and his associates in the treatment of President Dwight D. Eisenhower, as compared with those of his predecessors, illustrate the phenomenal progress of medical science. Time, too, has wrought great changes with respect to the secrecy which in the past surrounded the afflictions of Chief Magistrates. No longer is there any attempt to conceal even the elemental physiologic processes which relate to the President's health.

One may question the good taste or even the necessity for these revelations, but where the President's physician is concerned, frankness relieves him of the burden imposed by secrecy. It offers him an opportunity to disclose who the consultants are, their professional standing, and their views with respect to the state of the President's health. In his position, he cannot afford mistakes, for they will not be overlooked nor excused. So he surrounds himself with the ablest consultants to confirm, modify or reject his findings.

All in all, for the White House doctor this is a far better day. He has at his command diagnostic aids and therapy undreamed of by his predecessors. As a result, he should worry less and sleep better nights.

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Facing Stern Realities Not long ago your Observer discussed with an eminent psychiatrist the current gloomy prognostications by some prominent public figures and a few journalists, radio and television commentators. Technological accomplishments by the Russians, they proclaim, have all but doomed the Western World. There is a chance, they admit, of our regaining leadership in this field but, at best, it is slim.

What effect did the psychiatrist think this pessimistic talk was having on the people? The doctor's response was that he had no firsthand knowledge on the subject but his guess was that Americans had, as usual, reacted strongly. Ordinarily in a "cock-of-the-walk" mood, many now seemed frustrated and depressed. However, he thought they would soon come out of it.

Most observers agree that our people have long been uneasy due to pressures of modern life and international tensions. Evidence of this is to be found in the things to which they turn for solace.

Dr. Charles Sellers, Associate Editor of the *Detroit Medical News*, has something to say on this score in an editorial entitled, "The Quest for Tranquility."[1] As many others have done, he cites examples of the intense desire among many people "to get away from it all." Books such as "The Power of Positive Thinking," "Peace of Mind" and "Peace of Soul," he describes as "designed for those unstable individuals who cry for the pablum of tranquility." Some will disagree with Dr. Sellers on the "pablum" label and that these books are "literary pacifiers."

What disturbs Dr. Sellers most is the widespread use of sedatives, soporifics, mood-elevating preparations, and tranquilizing drugs.

> "The judicious and sensible use of the new tranquilizers is not easy to determine. Some patients exert considerable pressure on physicians to prescribe one or another of the latest mood modifiers. The promoters of these products have planted many articles in the lay press extolling the virtues of their particular preparations. The sales are in large volume. It has become big business."

Dr. Sellers, like many of his colleagues, deplores this situation and says that these drugs should be in the hands of physicians so that direct or side-effects may be observed. He points out that individuals respond differently to the various drugs. He concludes with this statement:

> "Apparently, some persons wish to retreat from stern reality and to approach the vegetable state. Is peace of mind of prime importance and a valid value? Is the absence of tension a goal for all mankind?
>
> "Turnips are tranquil."

Understandably, many persons in our day are assailed by misgivings in the face of problems which confront our civilization. But life must go on and courageous and adventurous spirits will not accept defeat.

T. W.

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[1] Detroit M. News, January 6, 1958.

REPORT OF DELEGATES TO THE AMA CLINICAL SESSION*

Convening in the Ballroom of the Bellevue-Stratford Hotel in Philadelphia on the morning of December 3, 1957, the House of Delegates applauded as Dr. Cecil W. Clark, of Cameron, Louisiana, was named General Practitioner of the Year because of his heroic and outstanding community service during Hurricane Audrey last June. Dr. Clark was presented with the gold medal which goes with the annual award. Rear Admiral B. W. Hogan, Surgeon General of the U. S. Navy, presented the Navy's Meritorious Public Service Citation to Dr. Dwight H. Murray, immediate Past President of the Association. Dr. Louis H. Bauer, who is retiring as head of the American Medical Education Foundation, received contributions to the Foundation from several state societies totaling several hundred thousand dollars.

Dr. David B. Allman, in his President's Address, called for "more freedom, not less, in America and in the medical profession." He urged that the profession embark on local action campaigns to enlist full community support in opposition to the Forand Bill, a pending Congressional proposal which would provide hospital and surgical benefits for persons who are receiving or eligible for Social Security retirement and survivorship payments. Dr. Allman pointed out that the Forand Bill was similar in many respects to previously proposed national compulsory health insurance and emanated from the same minds.

Subsequently the House, by adopting the report of its reference committee, gave strong approval to Dr. Allman's address, and in a related action disapproved the Forand Bill as undesirable legislation and approved the firm position taken in opposition to it by the Board of Trustees, which has appointed a special task force which is taking action to defeat the bill.

In settling the most controversial issue at the Philadelphia meeting, the House of Delegates approved a joint report of the Council on Drugs and the Council on Foods and Nutrition, which endorsed the fluoridation of public water supplies as a safe and practical method of reducing the incidence of dental caries during childhood. The 27-page report on the study which was directed by the House at the Seattle Clinical Meeting one year ago contained these conclusions:

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* The Eleventh Clinical Session of the American Medical Association was held in Philadelphia, Pa., December 3–6, 1957.

> "1. Fluoridation of public water supplies so as to provide the approximate equivalent of 1 ppm. of fluorine in drinking water has been established as a method for reducing dental caries in children up to 10 years of age. In localities with warm climates, or where for other reasons the ingestion of water or other sources of considerable fluorine content is high, a lower concentration of fluoride is advisable. On the basis of the available evidence, it appears that this method decreases the incidence of caries during childhood. The evidence from Colorado Springs indicates as well a reduction in the rate of dental caries up to at least 44 years of age.
>
> "2. No evidence has been found since the 1951 statement by the Councils to prove that continuous ingestion of water containing the equivalent of approximately 1 ppm. of fluorine for long periods by large segments of the population is harmful to the general health. Mottling of the tooth enamel (dental fluorosis) associated with this level of fluoridation is minimal. The importance of this mottling is outweighed by the caries-inhibiting effect of the fluoride.
>
> "3. Fluoridation of public water supplies should be regarded as a prophylactic measure for reducing tooth decay at the community level and is applicable where the water supply contains less than the equivalent of 1 ppm. of fluorine."

The complete joint report of the Councils will be published in the *Journal of the AMA* and is highly recommended as a factual document for those interested.

More and more the issue of free choice of physician in relation to contract practice is being raised.

Acting on this issue the House passed a resolution which reaffirmed approval of previous interpretations of the Principles of Medical Ethics by the Association's Judicial Council, and directed that they be called to the attention of all constituent associations and component societies. One Council opinion, issued in 1927 and reaffirmed in Philadelphia, stated that the contract practice of medicine would be determined to be unethical if "a reasonable degree of free choice of physician is denied those cared for in a community where other competent physicians are readily available." The resolution also cited a Council opinion, published in the October 19, 1957, issue of the *Journal of the AMA*, which stated that the basic ethical concepts in both the 1955 and 1957 editions of the Principles of Medical Ethics are identical in spite of changes in format and wording. This opinion added that "no opinion or report of the Council interpreting these basic principles which were in effect at the time of the revision has been rescinded by the adoption of the 1957 principles."

The 1927 Council report also pointed out that "there are many conditions under which contract practice is not only legitimate and ethical, but in fact the only way in which competent medical service can be provided." Judgment of whether or not a contract is ethical, the report said, must be based on the form and terms of the contract as well as the circumstances under which it is made.

In another action related to the issue of free choice, the House adopted a resolution condemning the current attitude and method of operation of the United Mine Workers of America Welfare and Retirement Fund "as tending to lower the quality and availability of medical and hospital care to its beneficiaries." The resolution also called for a broad educational program to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the "Guides to Relationships between State and County Medical Societies and the UMWA Welfare and Retirement Fund" which were adopted by the House last June.

The reports of the reference committee and action of the House will be published in detail in the *Journal* and should be valuable as guides to the various committees of our Society concerned with such matters.

During the past year the organization of the AMA has been studied and made the subject of a lengthy report by a business management firm known as Heller Associates, of Cleveland, Ohio. The report was sent to each delegate several months prior to the meeting and was carefully reviewed by a committee of the House of Delegates, which presented its recommendations in Philadelphia. Many of the recommendations had to do with purely administrative matters and were referred directly to the Board of Trustees for its consideration and implementation. Some of the changes had even been effected prior to the meeting.

Acting on the report of the Committee to Study the Heller Report on Organization of the American Medical Association, the House reached the following decisions on 10 specific recommendations:

1. The office of Vice President will be continued as an elective office.

2. The offices of Secretary and Treasurer will be combined into one office to be known as Secretary-Treasurer, and that officer will be selected by the Board of Trustees from one of its number.

3. The duties of the Secretary-Treasurer will be separated from those of the Executive Vice President.

4. The office of General Manager will be discontinued, and the new office of Executive Vice President will be established. The latter, appointed by the Board of Trustees, will be the chief staff executive of the Association.

5. The Council on Medical Education and Hospitals and the Council on Medical Service will continue as standing committees of the House of Delegates, but their administrative direction will be vested in the Executive Vice President.

6. The voting members of the Board of Trustees will be limited to 11—the 9 elected Trustees, the President, and the President-elect. The Vice President and the Speaker and Vice Speaker of the House of Delegates will attend all Board meetings, including executive sessions, with the right of discussion but without the right to vote.

7. The House disapproved of the proposal to elect the Trustees from each of 9 physician-population regions.

8. The office of Assistant Secretary will be discontinued, and a new office of Assistant Executive Vice President will be established.

9. The Committee on Federal Medical Services will be retained as a committee of the Council on Medical Service and will not become a part of the Council on National Defense.

10. The Speaker of the House will appoint a joint and continuing committee of 6 members, 3 from the Board of Trustees and 3 from the House, to redefine the central concept of AMA objectives and basic programs, consider the placing of greater emphasis on scientific activities, take the lead in creating more cohesion among national medical societies, and to study socioeconomic problems.

The accepted recommendations were referred to the Council on Constitution and By-laws with a request to draft appropriate amendments for consideration by the House at the 1958 annual meeting in San Francisco.

F. J. L. BLASINGAME, M.D.

General Manager, American Medical Association

DR. BLASINGAME, of Wharton, Texas, assumed the position of General Manager of the AMA on January 1, succeeding Dr. George F. Lull, who now holds the newly created office of Assistant to the President.

In regard to recommendation 4, having to do with the abolition of the office of General Manager and the creation of the position of Executive Vice President, it should be of interest that Dr. George F. Lull will retire as General Manager as of January 1, 1958 and will be succeeded by Dr. F. J. L. Blasingame of Texas, who in turn will become the first Executive Vice President of the organization. Dr. Lull will continue as Secretary until his successor is selected in June 1958.

Another action of the House which should be of interest to local physicians was the adoption of a set of "Guiding Principles for an Occupational Health Program in a Hospital Employee Group." The guides were developed by a joint committee of the American Medical Association and the

American Hospital Association and already had been formally approved by the AHA. They include these statements:

> "Employees in hospitals are entitled to the same benefits in health maintenance and protection as are industrial employees. Therefore, programs of health services in hospitals should use the technics of preventive medicine which have been found by experience in industry to approach constructively the health requirements of employees.
>
> "It is essential that employee health programs in hospitals, as in industry, be established as separate functions with independent facilities and personnel. The fact that hospitals are engaged in the care of the sick as their primary function does not alter the necessary organizational plan for an effective occupational health program."

The House accepted a 115-page "Guide to the Evaluation of Permanent Impairment of the Extremities and Back," which was developed by the Committee on Medical Rating of Physical Impairment as the first in a projected series of guides. The guides will be published in the *Journal of the AMA* and are expected to be of particular help to physicians in determining impairment under the new disability benefits program of the Social Security Act.

Among a wide variety of other actions, the House also:

Directed that a new committee be established in the Council on Industrial Health to study neurological disorders in industry;

Noted with approval the establishment of the American Medical Research Foundation, which will initiate and encourage necessary medical research and correlate and disseminate the results of studies already under way;

Decided that informational materials which are sent to AMA delegates should also be sent to all alternate delegates;

Affirmed that it is within the limits of ethical propriety for physicians to join together as partnerships, associations, or other lawful groups provided that the ownership and management of the affairs thereof remain in the hands of licensed physicians;

Instructed that the appropriate committee or council should engage in conferences with third parties to develop general principles and policies which may be applied to the relationship between third parties and members of the medical profession;

Urged state medical society committees on aging and insurance to make continuing studies of preretirement financing of health insurance for retired persons;

Endorsed a suggestion that the Committee on Federal Medical Services sponsor a national conference on veterans' medical care during 1958;

Asked the Board of Trustees to study the feasibility of having the Association finance a thorough investigation of the Social Security system by a qualified private agency;

Suggested that physicians and their friends make a vigorous effort to obtain Congressional enactment of the Jenkins-Keogh Bills;

Approved the "Suggested Guides to Relationships between Medical Societies and Voluntary Health Agencies," and

Strongly recommended that a completely adequate and competent medical department be established in the Civil Aeronautics Administration directly responsible to the CAA Administrator.

Your delegates have intended in their report to highlight only some of the proceedings of the House and wish to remind the members that complete reports are published in the *Journal of the AMA*. Much of the material should be of particular interest to members of our committees. Your delegates would be happy to assist committee chairmen and members in reviewing any special item.

Respectfully submitted,
RAYMOND T. HOLDEN, M.D., *Delegate*
VICTOR R. ALFARO, M.D., *Delegate*
EDWARD W. NICKLAS, M.D., *Alternate Delegate*
THEODORE WIPRUD, *Secretary*

SURVEY OF THE MUNICIPAL HOSPITAL FACILITIES OF THE DISTRICT OF COLUMBIA*

SUMMARY REPORT: PART I

INTRODUCTION

This summarizes a complete report consisting of 3 volumes as follows: Volume One, concerning hospital and health programs of the District of Columbia; Volume Two, dealing with the physical facilities of the municipal hospitals; and Volume Three, reporting observations of organization and management in the municipal health programs and hospitals. In addition, a preliminary report was submitted in April, 1957.

SCOPE AND OBJECTIVES OF THIS STUDY

The major objectives and purposes of this study were to:

1. Provide a comprehensive analysis of hospital needs in the community.
2. Develop a detailed definition of the objectives and role of the municipal hospitals and of the voluntary hospitals in the District of Columbia.
3. Project the hospital needs of the community for purposes of long-term planning.
4. Provide a master plan for the orderly expansion of present municipal hospital facilities.
5. Develop a program for effective utilization of the municipal hospitals and health facilities.
6. Reëvaluate the methods and formula of reimbursement to voluntary hospitals for the care of indigent and medically indigent in terms of reasonableness, equity, and consistency with patterns elsewhere in the country.
7. Develop a plan which will reduce as far as possible any unnecessary duplication of responsibilities and functions in the care of indigent patients by voluntary and municipal hospitals.
8. Determine the extent to which the two municipal hospitals and the health clinics unnecessarily duplicate functions.
9. Develop a plan for the effective provision of high quality care for the indigent and medically indigent at minimum cost to the community.

Administration of health facilities and programs was not included in the contract of employment of consultants. At the time that this study was started a congressional committee was making a detailed study of the management of D. C. General Hospital.

However, in order to achieve the objectives of this study, it was necessary to review many aspects of administration and observe the operation of the municipal health facilities. It was believed that it would be desirable to convey observations on administration and operations even though these were not included in the scope of the study. This was done in Volume Three.

Two other major areas that were not included in the scope of this study are the nurse education program and the organization of the Department of Public Health.

The latter is discussed to a limited degree in the third volume. Both of these areas should be completely studied.

METHODS OF STUDY

In general, study methods included:

Review and careful analysis of statistics, Commission orders, written policies and procedures, statistical and other reports, and other documentary material;

Development of specific information from such sources as analysis of patient records;

Discussion and interviews with officials of the District Government, administrators of hospitals, directors of health agencies, members of the medical profession, and particularly members of the medical staff of the District of Columbia General Hospital;

Analysis of blueprints, plans and specifications;

Advice and consultation from a group of medical specialists in the community who have particular knowledge of medical education and research, and

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* EDITOR'S NOTE: This report, prepared by Isadore and Zachary Rosenfield, Architects and Hospital Consultants, and John G. Steinle and Associates, Management Consultants to Institutions, was released for publication in December, 1957. It is being published in 2 parts, of which this is Part I. Part II will appear in the March issue. The text is reprinted in full; some of the exhibits have been omitted.

Experimental development of a number of different plans, schemes and layouts.

Data and preliminary findings usually were reviewed with officials of administrative units concerned and other authorities. Conclusions and recommendations also were discussed. While this was time-consuming, it was believed that a better understanding of this report would result. It also gave the surveyors an opportunity to correct any misinterpretations or errors in statistics.

A tremendous amount of assistance was received from District Government personnel. Advice, data and consultation also were obtained from Georgetown University Medical School, George Washington University Medical School, the voluntary hospitals in the area, members of the medical profession, the District of Columbia Medical Society, United States Public Health Service, The Bureau of Census, Washington Board of Trade, the medical staff of St. Elizabeths Hospital, the Hospital Council of the National Capital Area, and the Hospital Service Agency.

General Observations

There are certain factors which must be constantly kept in mind when considering this report:

There is an inherent danger in taking any section and treating it out of context. This report is a total document. Often recommendations are closely interrelated. It sometimes will be necessary to accomplish one recommendation before another can be implemented. Bed needs of the tuberculous and mentally ill are based on the assumption that case-finding, early treatment, posthospital care, and prevention programs outlined in this report will be implemented.

The social, economic, cultural and industrial components in the District of Columbia are very different from any other major municipality. There is very little industry in the District. The Federal Government is by far the largest employer. There is a high percentage of the population with incomes less than adequate to pay for hospital care.

It is impossible to consider the need for beds, particularly for chronic, mental and tuberculous patients, without considering the community resources and agencies concerned with prevention, diagnosis, ambulatory and posthospital care.

The government structure of the District of Columbia, particularly the lack of local legislative authority, has probably had a direct effect on medical care programs. A large number of Congressional and other investigations have been made of the health and hospital agencies. This has in some instances had an adverse effect on the morale of employees. The remoteness of the legislature from the public has probably helped create the lack of progressiveness in some elements of planning and operations of the municipal hospitals and health programs. The surveyors noticed a decided tendency on the part of some municipal employees to be more concerned with legislative reaction than is usually found in other municipalities. Other employees were admittedly fearful of taking bold and definitive action because of the implied threat of legislative criticism.

Among the general impressions that were drawn during the 9 months of this study, these are of utmost importance:

Considering the overall deficiencies of the physical plant (discussed in detail in Volume Two), the quality of medical care provided at the municipal hospitals is high. The medical schools have contributed a great deal to the high standard of the medical staff at D. C. General Hospital. It was observed that the nursing was generally considerate, sensitive and kind in both the municipal hospitals.

The total funds annually appropriated for health programs should be sufficient to meet the needs of the residents of the District of Columbia. The total funds proposed in the present budget compare favorably with expenditures in other communities. There is a tremendous need for a shift in emphasis in a number of the health programs. In order to achieve change in emphasis, additional funds must be spent to establish areas of expansion of program before contraction elsewhere can be achieved. For example, it will be necessary to establish effective case-finding, follow-up and posthospital care programs in mental health and tuberculosis before substantial reductions in occupied beds can be achieved.

Industry often organizes for annual giving to hospitals. For example, the Hospital Fund of Greater New York annually raises millions of dollars for voluntary hospitals. Similar organizations exist in Philadelphia, Detroit, Cleveland, Chicago and other major cities. This organized giving by industry is usually identified with a recognition of a responsibility for, and an interest in, the health of employees. Industry has long acknowledged that an interest in the health of employees is an interest that pays off in good will, reduced absenteeism, recruitment and retention of personnel.

A major problem in the District of Columbia is a lack of industry to serve as the backbone of hospital philanthropy. According to the 1950 census, 39.3 per cent of all employed persons residing in the 15 major cities (excluding Washington, D.C.) were employed in manufacturing. This compares with only 7.3 per cent in the District of Columbia. Only 4.3 per cent of employed residing in 15 major cities were employed in public administration. This contrasts with 30.7 per cent in the District of Columbia.

Historically, the government of the District of Columbia has assumed a responsibility for the care of the indigent and medically indigent. In recent years, in the absence of private philanthropy, the District Government has been forced to assume a major obligation for the financing of the voluntary hospitals.

The defined responsibility of the District of Columbia should be for the financing of care for those unable to pay for hospitalization. The responsibility of the Federal Government should be that of the principal employer in the area—the equivalent of industry in other urban centers. It should be primarily responsible for assisting in construction of the voluntary hospitals whose facilities are used by the Federal Government's employees. Grants to voluntary hospitals should be by the Federal Government. The District Government should not be compelled to participate in such grants.

HOSPITAL AND HEALTH PROGRAM NEEDS

Hospital Bed Need

The acute general hospital bed need for the Washington Metropolitan Area was determined. It was necessary to make this determination for the total region because of the extensive use of the facilities located in the District of Columbia by residents of the surrounding area.

The method selected for use in this study is based on previous studies, which have shown that the age composition of the population in a community is the dominant factor in the type and quantity of hospital facilities needed. One of the chief advantages of this method is that results are given in terms of bed requirements by service, such as medicine, surgery, etc.

By use of this method the need was estimated to be 5,843 acute general beds for those residents of the Washington Metropolitan Area not receiving Government hospitalization. The need of the District of Columbia population is for only 2,859 beds. The need for the metropolitan area will increase as the population increases to an estimated 7,998 in 1980.

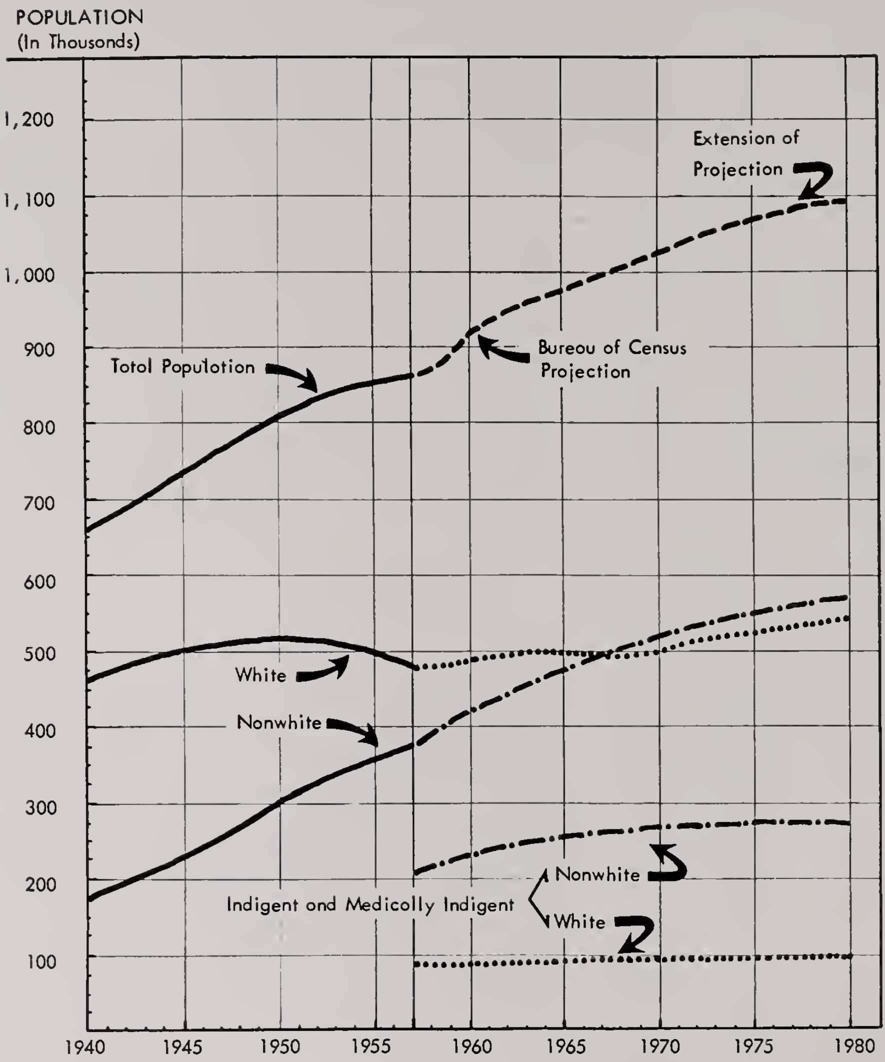
By 1960 there will be 6,354 acute general beds in the metropolitan area. This will compare with an estimated need for 6,619 acute general beds. This figure does not include mental, chronic or tuberculosis beds.

There are at least 800 beds in the consideration stage for new hospitals or as additions to existing hospitals. If built, these beds, with those that will be in operation by 1960, will approximately meet the need of the metropolitan region through 1970, when the need is estimated to be 7,576.

Need of Indigent and Medically Indigent. From Bureau of Labor Statistics data, a minimum cost of living budget according to family size was developed. This budget excluded funds for hospitalization. A special study was made by the Bureau of Census of the 1956 family income of residents of the District of Columbia. This was used to determine the number of persons with income less than the minimum cost of living budget. This phase of the study was limited to the District of Columbia since the responsibility of the municipal government is restricted to residents. The need for acute general hospital beds for patients unable to pay for hospitalization in the District of Columbia is currently estimated at 1,317. This need will rise to an estimated 1,674 by 1980. It was determined that there

EXHIBIT 1

Projection of Total Population, White and Nonwhite, and Indigent and Medically Indigent by White and Nonwhite (District of Columbia)



are many persons in the District of Columbia who are unable to pay for their hospitalization but who are not now eligible for assistance from the municipal government.

A projection of the total population and the indigent and medically indigent population by white and nonwhite is shown in exhibit 1.

Care of the Indigent and Medically Indigent

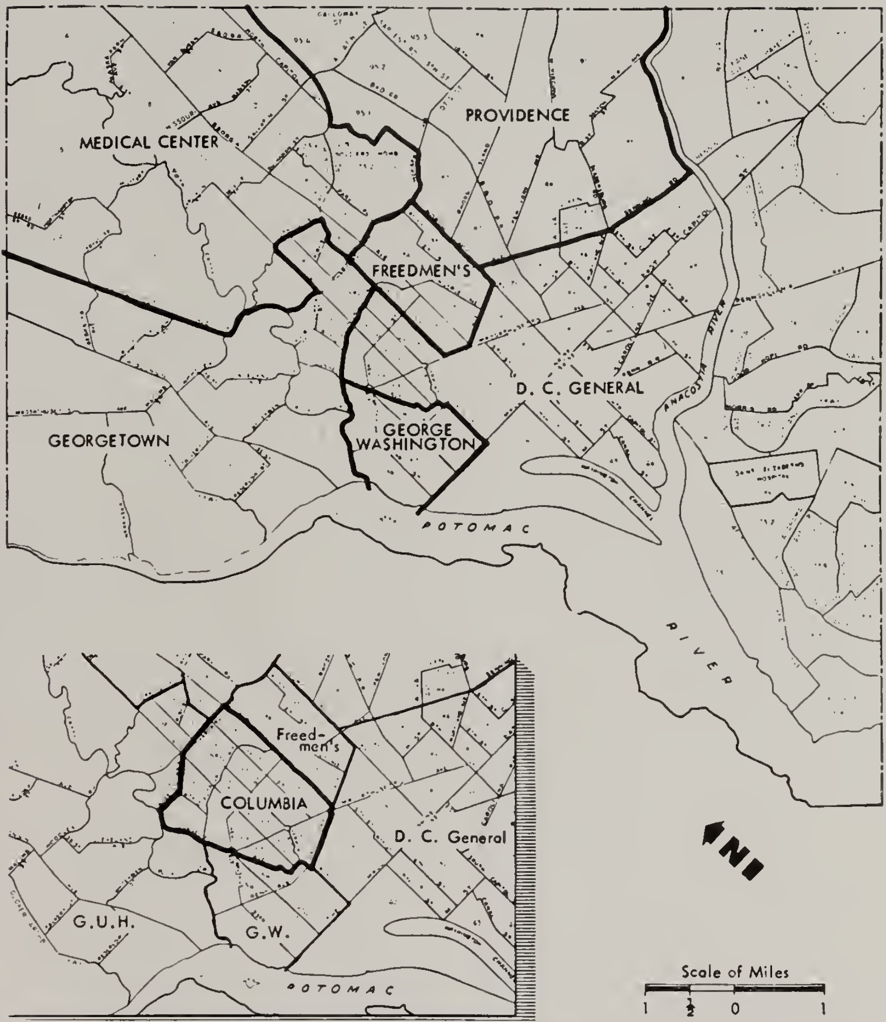
There is a need to completely revise the criteria now used to determine eligibility for care in municipal hospitals or in voluntary hospitals at District Government expense. The criteria now used were established in 1946. New criteria which take into consideration past and probable medical expenses and the patient's prognosis are suggested.

A program is recommended which would include Federal participation in the cost of medical care for recipients of public assistance grants requiring medical care. (Since an advantage of approximately $500,000 a year to the District Government is involved, this recommendation was made early in the study. The District Government has taken the action required.) The recommended program included (1) establishment of a medical payment pool for all those receiving categorical welfare assistance, such as old age assistance, aid to the totally disabled and aid to dependent children, and (2) keeping patients at D. C. Village on the rolls of category assistance. Those receiving medical assistance are now removed from the rolls. This removal eliminates Federal participation in payment for the cost of care.

A program for provision of care to the indigent and medically indigent in voluntary hospitals located near their homes is proposed. Each voluntary hospital would have an area assigned. Patients from this area would ordinarily use the hospital assigned. Reasonable flexibility is recommended for this program so that hospitals could

EXHIBIT 2

Geographic Areas of Responsibility—D. C. General and Voluntary Hospitals



take indigent and medically indigent patients outside their service area for a number of special reasons. Exhibit 2 is a map showing suggested areas of responsibility for the several hospitals.

The voluntary hospitals should be reimbursed for both inpatient and outpatient care according to a formula that considers the advantage to the hospital of having such patients for student, intern and resident teaching. The current rate recommended is $14.10 per inpatient day and $2.11 per outpatient visit.

Administrative Recommendations. A number of changes in the administration of medical care for those unable to pay are recommended. These include:

1. The transfer of the Medical Assistance Division of the Department of Health to the Department of Welfare. The latter agency is primarily responsible for the determination of eligibility. It has a field investigation staff that can be expanded to investigate ability to pay for medical care.

2. An admissions staff should be maintained at D. C. General Hospital 24 hours a day.

3. The District Physician Service should be transferred to D. C. General Hospital.

4. Applications for indigent and medically indigent care should be initiated by the individual hospitals. The Bureau of Medical Assistance of the Welfare Department should be primarily responsible for reviewing, investigating and finally passing on these applications.

TUBERCULOSIS HOSPITAL BED AND PROGRAM NEEDS

A dramatic decline in the present tuberculosis bed needs can be accomplished. The decrease can be from the present estimated need of 683 beds (in 1958) to about 250 beds in 1964 and gradually declining to approximately 200 beds in 1972. This decline can only be accomplished if a dynamic program of case-finding, careful follow-up of known cases, and effective posthospital care is provided.

In the absence of a total program more beds will be required.

The reduction of beds will permit the closing of Glenn Dale Hospital and locating all patients at D. C. General. This is made particularly feasible by the construction changes subsequently recommended at D. C. General Hospital. This conversion should be accomplished by 1964. As an immediate step in this direction, the following should be immediately implemented: (1) the medical staffs of D. C. General and of Glenn Dale should be integrated; (2) a central record system should be established. A unit record should be maintained on each patient. This record should be transferred with the patient between D. C. General and Glenn Dale.

In order to achieve an effective program of case-finding, early treatment and ambulatory care, the following recommendations are made:

1. An adequate cost accounting system is necessary so that all expenditures for the care of the tuberculous and the cost of operating a TB control program can be determined. This is essential if a balance between elements of the program is to be maintained. As the number of patient days of care decreases, the hospital costs should also decrease. Concurrently, there should be an increase in appropriations for other elements of a total program, case-finding, follow-up and posthospital care.

2. Control of expenditures can be achieved only if all elements of the costs of the program are known. It is particularly important that actual expenditures for the care of the tuberculous at D. C. General Hospital be identified.

3. While mass X-ray surveys should be continued the principal case-finding technics should be:

   a. Routine chest X-rays of all hospital inpatients and outpatients

   b. Patch tests of high school students

4. There should be continuous inventory of the TB register.

5. A complete investigation should be made when contact with a patient is broken.

6. Ambulatory clinics should be operated in the voluntary hospitals as well as in the municipal hospitals. Payment for care in the voluntary hospitals should be on a per visit basis. Any additional clinics, such as the one now operated at the old Upshur Street Hospital, should be the responsibility of the combined municipal hospital staff.

7. The Tuberculosis Control Officer of the Department of Public Health should be responsible for the coördination of all activities relating to tuberculosis.

PSYCHIATRIC HOSPITAL AND PROGRAM NEEDS

There is a high ratio of mental hospital patients to population in the District of Columbia. There are approximately 6.6 occupied beds per 1,000 population in the District of Columbia. This is approximately 2 beds per 1,000 population more than the highest number of beds provided for the population of any other major city. This high ratio of beds is attributed to the following:

A lack of geriatric facilities in the District of Columbia. Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital and nationally known authority on psychiatric facilities, stated that the geriatric population at St. Elizabeths constitutes 30 per cent of the total patient population. "This is a much larger percentage than is found in some other public mental hospitals for the reason that many states have separate facilities for geriatric patients."

There are inadequate programs for prevention, early diagnoses and treatment and posthospital care.

To reduce the expensive bed care program the following recommendations are made:

1. A geriatric unit for the mildly psychotic aged should be provided in the present women's building at D. C. General Hospital. This unit can act as a pilot study for perhaps a more extensive program. The women's building will be vacated if the total integration of facilities proposed in Volume Two is undertaken. Patients in a special geriatric building may be eligible for old-age assistance. The Federal Government participates in the cost of these grants.

2. To improve prevention, early diagnoses and treatment, and posthospital care the following are recommended:

   a. A school psychiatric program should be developed

   b. Child mental health clinics should be established. These specialized clinics paid for by the District Government should be located at: Georgetown University Hospital, George Washington University Hospital, Washington

Hospital Center, Sibley Hospital, Children's Hospital, D. C. General and Freedmen's Hospitals

c. Adult mental health clinics should be established at District Government expense at George Washington University Hospital, Georgetown University Hospital, Washington Hospital Center, Freedmen's Hospital, Sibley Hospital and D. C. General Hospital

d. A posthospital follow-up program should be established. This program should include (1) regular home visits by public health nurses during the posthospital trial period which mental patients often spend at home prior to definite discharge, and (2) a clinical team to follow up patients after actual discharge when the resources of the hospital are no longer available

e. An education program should be established. While the primary responsibility in the community for mental hygiene education is that of the voluntary agencies, the proposed Bureau of Mental Health should provide support for these agencies.

Other Conclusions and Recommendations. The method of commitment for children to St. Elizabeths requires discontinuance of the relationship of the child with community agencies, the juvenile court, parole officers, and the Welfare Department. The method requires that the child be branded for life as having been committed to an institution for the insane.

Alcoholics comprise about 40 per cent of the admissions to D. C. General Hospital psychiatric unit. The rate of deaths among this group has decreased. The hospital occupancy has dropped from an average of 10 days to only 5 days per patient. Repeat patients among this group are becoming fewer. Substantial strides have been made in D. C. General Hospital in the treatment of these patients.

It is recommended that the present psychiatric facilities be converted to the following functions:

100 beds for children
45 beds for alcoholics and drug addicts
23 beds for research

There are inadequate facilities for the private psychiatrists in the District of Columbia. There are at present only 79 psychiatric beds available in the entire metropolitan area to private psychiatrists. It is recommended that the new psychiatric unit at D. C. General be made available to private patients.

Private psychiatrists who are approved by the staff of the psychiatric unit of D. C. General should be accepted as staff members and have privileges for admission of private patients.

Organization for a Dynamic Mental Health Program. There are, at present, 3 divisions of the Department of Public Health concerned with the care of psychiatric patients. It is recommended that a Bureau of Mental Health be established.

This Bureau should not directly operate clinics but should be responsible for the coördination of programs. The Bureau should monitor all direct patient care activities in the community; operate the school mental health program; follow, on a selected basis, recent discharges from mental hospitals; and serve as the primary planning agency in the community for mental health programs, and be responsible for planning and developing a balanced program.

The present expenditures for all psychiatric care, including the operation of clinics, payments to St. Elizabeths Hospital, and the operations of the psychiatric division of D. C. General Hospital, approximate $13,160,000 per year. It should be an objective of the Bureau of Mental Health that the total expenditures not exceed this figure. This Bureau should attempt to allocate expenditures so that the monies spent on activities of prevention, such as the psychiatric clinics and the school health program, are reflected in the reduction of costs in the care of inpatients at St. Elizabeths Hospital.

Estimates by authorities of the number of patients now being sent to St. Elizabeths who would not need chronic hospitalization if the program outlined above was effectively implemented, ranged from 20 to 50 per cent. Assuming the lowest figure of 20 per cent, at least 200 admissions per year could be eliminated. If this were projected over 9 years, the number of beds per 1,000 population could be reduced from 6.6 to 4.6 per 1,000 population. An eventual saving in long-term chronic hospitalization of $4 million per year would result. The immediate reduction of 20 per cent in the number of admissions to D. C. General Hospital should constitute an annual saving of approximately $400,000. This would be increased each year at a compounded rate until the annual saving of $4,000,000 is achieved.

The cost of the preventive program is approximately $660,000, as follows:

Proposed school program, $185,000
Child psychiatric clinics, $240,000*
Adult psychiatric clinics, $100,000
Program development, $135,000†

In addition to the saving to be achieved from reduction in admissions to St. Elizabeths Hospital, there should be increased income from the operation of a geriatrics unit of 230 beds on the grounds of D. C. General Hospital from the Federal Government as its share for the payment of Old Age Assistance. This should approximate $86,000.

AMBULATORY PATIENT CARE

Ambulatory patient care is provided at outpatient units of voluntary hospitals, clinics of the municipal hospitals, and at clinics operated by the Department of Public Health. A program for elimination of unnecessary duplication and for assuring continuity of patient care is recommended. It is a common occurrence for indigent and medically indigent patients to receive a diagnosis and care at one clinic and be sent for treatment elsewhere. In such instances, each clinic or hospital completely duplicates the tests and other diagnostic work performed on the patient, and both patients and physicians are deprived of the benefits of continuity in the course of care.

A system by which each hospital would have a service area is recommended. The service area would be the same as that proposed for general hospital inpatient care.

The extensive health center construction program recommended by some individuals in the Department of Public Health should not be undertaken.

Units of the Department of Public Health now providing direct patient care should be responsible for the following: establishing medical policy, auditing programs of medical care, program planning, and coördination of programs.

D. C. General Hospital staff should operate a field clinic in that part of the Southwest Section that is most remote from the hospital. The field clinic should include prenatal, well baby, cancer detection, and diabetes.

Dental clinic services should be purchased from Georgetown University Dental School. This institution should provide services in clinics preferably located in outpatient departments of hospitals. In this environment, complete physical examinations can be given, the total medical-dental problem of the patient can be considered, and all the resources of modern medicine will be available in an emergency.

Prenatal and well baby clinics should be operated by the hospitals. The resources of the Bureau of Maternal and Child Health of the Department of Public Health should be used to set standards for, and to audit and advise the clinical programs. (This will be only a part of the Bureau's functions. Except for its clinical program its other functions should remain intact.)

CHRONIC DISEASE

The need for chronic disease facilities will increase substantially as present standards of operation of nursing homes are enforced, and licensing regulations are expanded to include boarding homes and all nursing homes, including religious and fraternal.

There appears to be a need for additional beds for persons not requiring hospital care but who need substantial nursing care and who are either now occupying hospital beds or are being inadequately cared for at home.

It is recommended that 150 beds be provided for the chronically ill at D. C. General in the conversion and remodeling plan. The tuberculosis unit of 150 beds at Freedmen's Hospital should be converted to chronic care. Beds at D. C. General allocated for tuberculosis, that are vacated after 1964 as a result of declining demand, should be converted to chronic disease beds.

An effective nursing home licensing program should be established in the Health Department. There should be a fixed responsibility for all aspects of the licensing program in a single agency. Nursing home supervision requires consultation and assistance primarily of a health nature which is not available in the Department of Licensure and Inspection.

Licensing requirements should be extended to all facilities providing nursing or supervisory care, including religious and fraternal homes; boarding homes providing care to the aged, blind and infirm; and to foster homes that provide care to sick or infirm adults. New Jersey has had extensive experience in the administration of a program which differentiates between licensure of nursing homes and boarding homes. The program is administered by the Department of Institutions and Agencies.

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* Does not include cost of child psychiatric clinic at D. C. General Hospital.

† Does not include posthospital follow-up program for which grant funds have been requested.

A home care program should be established at D. C. General Hospital. The District Physicians Service administered by the Medical Assistance Division and the Home Care Program administered by the Chronic Disease Division of the Department of Public Health should be integrated with the proposed home care program of D. C. General Hospital.

The home care program should be an extension of the hospital and should be closely integrated with the outpatient services. It is recommended in Volume Three of this report that the Assistant Administrator for Ambulatory Services assume responsibility for this program as well as for the outpatient service of the hospital.

(*To be continued*)

NEW STUDY PROJECTS AT THE CLINICAL CENTER

The attention of physicians who may be interested in referring patients for study at the Clinical Center, National Institutes of Health, Bethesda, Maryland, is called to the following announcement:

Because of intensified research effort in these areas, diagnoses of particular interest to the Clinical Center at the present time include Reiter's syndrome, idiopathic thrombocytopenic purpura, drug purpura, hemophilia, and children with malignant neoplasms, particularly leukemia.

Patients are considered for admission to the Clinical Center for study and treatment only when referred by their own physicians as having a diagnosis required on one or more clinical research projects being conducted by the National Institutes of Health. Referrals should be by letter which incorporates an adequate summary; however, preliminary inquiries by telephone may be made. Such communications should be addressed to the Director of the Clinical Center for registration and circulation among appropriate clinical groups. There is no charge to the patient for medical, surgical, or other hospital services rendered as a necessary part of his participation in the research program. Upon discharge of the patient back to his care, the referring physician receives a full report on findings together with recommendations when indicated.

As stated above, there is particular interest at the present time in referrals of patients deemed suitable for the following studies:

1. *Reiter's Syndrome.* The National Institute of Arthritis and Metabolic Diseases is expanding its study of Reiter's syndrome. This syndrome is an acute or chronic recurring polyarthritis following a nonspecific urethritis, and is frequently associated with conjunctivitis. Study patients with this disease are especially needed during the first 2 weeks from onset. Microbiologic, immunologic, clinical and therapeutic studies will require an average hospitalization of 4 weeks.

2. *Idiopathic Thrombocytopenic Purpura and Drug Purpura.* A hematology group in the National Institute of Arthritis and Metabolic Diseases is studying the diseases idiopathic thrombocytopenic purpura (ITP) and drug purpura due to quinidine or quinine sensitivity. It is hoped that the possible allergic nature of ITP may be more clearly demonstrated by comparing the clinical and experimental laboratory results in the two diseases. The ITP cases of special interest include any early case prior to steroid therapy or splenectomy, or any case showing no response to these forms of therapy. Patients with a history of quinidine or quinine drug purpura, or suspected drug purpura, would be as suitable as those having acute manifestation of this disease.

3. *Hemophilia.* The hematology group is also interested in patients with abnormalities in blood coagulation, particularly those with obscure or any type of known hemophilia. Because of the research requirements in evaluating newer forms of therapy in these diseases, adult patients are preferable to infants or young children.

(*Continued on page 110*)

On the Lighter Side

Bowling continues to attract nearly 100 physicians and dentists to the mapleways every Friday night at 9:30, holidays excluded. This season's games are rolled on the spacious Bethesda "Forty" Bowling Alleys, located in Bethesda, Md., which are equipped with those mechanical marvels of electronic know-how, the automatic pin setter. This device, well worth the price of the games alone just to watch it in operation, is a most ingenious, smooth-working invention, totally lacking in temperament yet having an abundance of patience while waiting for the slow bowler to get started. It sets the pins with precision on designated spots, picks them up when commanded to do so, and sets them down again without deviating an iota. When necessary it will sweep the dead ducks from the boards without leaving a single one for human burial.

The D. C. Medical-Dental Bowling League is named "D. C." purely from habit. Virginia, Montgomery County and Prince Georges County are amply represented with an equal number of excellent bowlers. Bowlers representing all the medical specialties, and of all ages, are enthusiastically competing in this League. Here are found the students of bowling and the neophyte, along with the once-a-week bowler, side by side trying their best to get those elusive strikes, spares and "all the wood."

Here you will find friendly companionship, the reviewing of difficult and interesting cases, the confiding of family joys and sorrows, the telling of jokes and stories, along with the business of bowling. Here, in this pleasant, friendly atmosphere you will be able to forget your troubles for two or three hours. You will go home tired in muscle but will sleep like the proverbial kitten. And the next day you will be more relaxed because of the previous night's activity. Try it sometime!

Half of the 1957–58 bowling season is over. Here are the official standings as of January 10:

Team Standings

Place	Team	HG	HS	Won	Lost	Pinfall
1	Doctors	528	1513	34	14	23,212
2	Sibley #1	565	1585	32	16	23,865
3	Beta	548	1528	30	18	23,161
4	Casualty	588	1646	28	20	24,242
5	Columbia	527	1531	28	20	23,231
6	Suburban	548	1572	25	23	24,155
7	Children's	569	1586	24	24	24,152
8	Emergency	560	1541	22	26	23,314
9	Delta	474	1369	20	28	20,472
10	Garfield	532	1550	20	28	22,422
11	Alpha	514	1474	20	28	22,418
12	Providence	548	1548	19	29	23,385
13	Sibley #2	564	1613	18	30	22,434
14	Gamma	528	1410	16	32	21,506

Individual Records

Team	G	Sp	St	HG	HS	Avg.
ALPHA						
Taylor	45	54	19	120	311	95
Kogan	45	68	14	124	316	96
Cercell	48	60	18	120	334	95
Greeves	45	46	18	118	306	91
Bouchard	45	42	12	129	301	90
BETA						
Douglas	45	63	21	125	320	98
Berman	45	62	14	117	329	97
Hopkins	48	58	12	115	305	95
Hollis	42	70	18	125	339	101
Castro	45	45	15	123	317	92
CASUALTY						
Dibbs	48	55	15	120	308	92
Duffy	45	101	15	144	368	108
Price	48	91	22	152	384	105
C. Hageage	42	84	19	130	349	104
Eig	24	52	8	124	365	107
Clark	5	4	2	109	285	104
Fitzgerald	1	0	1	94	94	107
CHILDREN'S						
Bacon	45	51	16	131	323	97
Kay	40	64	15	145	354	103
Kessler	34	68	13	125	349	104
Cook	45	63	13	121	313	97
Pekin	27	34	13	139	361	101
Resta	42	69	20	139	372	103
COLUMBIA						
Kadan	39	78	10	140	351	103
C. Reeves	44	67	11	135	342	99
Connolly	37	44	14	112	324	94
Hodge	42	47	16	121	327	95
McDonald	36	47	11	123	321	95
Sealfon	33	39	9	116	304	94
G. Reeves	6	0	0	83	243	78

Team	G	Sp	St	HG	HS	Avg.
DELTA						
Rabin	45	44	11	115	327	90
Conlon	45	17	4	100	257	75
Crowley	42	39	7	120	287	85
Von Eiff	38	30	7	97	273	84
Keaveny	42	36	11	108	281	87
DOCTORS						
Perkins	47	67	22	123	326	97
Brown	38	52	17	123	333	99
Golden	37	54	11	145	341	98
Lloyd	21	33	5	126	315	97
Silverman	32	40	11	119	314	95
Thomas	43	69	13	120	321	97
EMERGENCY						
Schumacher	36	48	17	134	331	98
Van Kinsbergen	48	108	19	146	368	108
Hawfield	36	59	19	129	335	101
P. Dorman	42	29	8	116	291	83
Brawner	48	75	17	117	318	97
H. Dorman	21	22	9	119	305	96
Young	3	3	0	90	239	79
GAMMA						
Salcetti	45	46	5	125	326	87
Ferrigno	48	46	19	118	305	93
LeBlanc	48	50	12	130	316	91
Fleming	48	36	8	121	290	88
Mueller	41	38	9	109	282	87
GARFIELD						
Klein	36	31	15	111	312	88
Bunge	24	23	5	107	288	89
Grubb	27	29	8	117	302	93
Cushard	42	51	16	138	347	97
Cosimano	45	49	16	122	320	94
Peizer	27	38	7	122	322	98
Richtmeyer	18	33	5	129	332	100
PROVIDENCE						
Levin	48	114	25	137	374	10
Crain	45	65	18	118	320	00
Feldman	44	40	9	120	283	86
Cashman	36	45	8	118	311	92
Heiges	30	31	12	117	298	93
William'sky	8	17	4	125	330	109
O'Keefe	1	0	0	61	61	79
SIBLEY #1						
Finnegan	43	71	9	133	363	99
Ball	48	86	21	136	345	104
Schilke	32	33	9	124	303	93
Richardson	42	67	14	130	344	99
Belair	39	63	14	134	336	99
Baiers	15	31	11	146	398	113
Clements	15	14	2	101	288	87
Klepser	1	1	0	77	77	97
SIBLEY #2						
McLain	47	69	16	132	359	100
Hand	42	80	13	129	346	101
Morse	48	65	18	119	331	98
Kirchner	39	51	11	116	315	96
Newman	21	23	6	102	290	93
Gable	12	11	4	122	310	91
Barnhard	7	10	5	126	332	96
Shea	9	10	4	121	292	90
SUBURBAN						
Andrews	48	60	15	127	336	97
Betz	42	77	17	125	334	102
Meyer	48	109	18	143	366	108
Ottman	46	73	18	122	331	100
Porton	48	67	14	120	312	96
SUBSTITUTES						
Carter	37	39	11	123	315	90
Oberman	3	3	0	100	272	90
Fridl	3	0	1	98	271	90
MacDonald	2	6	0	109	216	107

J. Earl Kadan, M.D.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, March 24, 1958.

For Active Membership

Jesse B. Barber, Howard University—1948
George Chornesky, University of Geneva (Switzerland)—1951
Michael A. Corrado, George Washington University—1952
Evelyn E. Henley, Howard University—1954
Arthur P. Hustead, Yale University—1952
William Chia Len Liu, West China Medical School—1948
Robert Nenno, Loyola University—1947
William D. Oldham, University of Louisville—1951

For Associate Membership

Conrado Bogaert, Santo Domingo University (Dominican Republic)—1949
Charles L. Dunham, University of Chicago—1933
Erman W. Edgecombe, Howard University—1945
James W. Egan, Georgetown University—1946
E. Milwyn Evans, Welsh National School of Medicine—1946
Hei Kit Lee, George Washington University—1955
Joao W. T. F. Pereira, University of Lisbon (Portugal)—1948
Angus C. Smith, University of Glasgow (Scotland)—1950
Pauline A. Swarm, Washington University (St. Louis)—1951

(*Continued on page 110*)

CORRESPONDENCE

Washington, D.C., November 15, 1957

To President Watts:

The Nurses' Examining Board would appreciate it if you would make the contents of the following memorandum to employers of nurses in the District of Columbia known to the membership of the District of Columbia Medical Society:

"For sometime the Nurses' Examining Board has been concerned over the lack of compliance with the requirements of the law on the part of nurses who are actively practicing in the District of Columbia. Because of the continued indifference on the part of such nurses in obtaining and maintaining registration in conformity with the District of Columbia Law, registration and enforcement procedures are in process of revision. Copies of the revised forms and newly adopted policies will be distributed upon completion; also copies of the law will be redistributed as soon as a new printed supply is available.

"In connection with the above action, the Nurses' Examining Board requests that employers of nurses assume the responsibility of checking, immediately, the registration credentials of all nurses in their employ. Current registration cards for the District of Columbia bear the dates July 1, 1957 to June 30, 1958.

"Your coöperation will be greatly appreciated."

Sincerely yours,
Martha Jane Thomas, R. N
President
Luna T. Evans, R.N., *Acting Executive Secretary*
Nurses' Examining Board, Government of the District of Columbia

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Washington, D. C., December 16, 1957

To Mr. Wiprud:

The Commission on Licensure at a regular meeting held December 9, 1957, considered the matter of borderline registration between the District of Columbia and the state of Maryland.

The U. S. Attorney [the Honorable Oliver Gasch] read a letter of the Attorney General of Maryland, copy of which is [reproduced herewith]. It is the opinion of the U. S. Attorney that borderline privileges are covered by the Maryland statute even though a borderline permit as such is not issued by that Board. On the basis of the Maryland Attorney General's letter and Mr. Gasch's opinion, the Commission voted unanimously to continue issuing borderline permits to physicians licensed and practicing in contiguous counties of Maryland.

Sincerely,
Daniel L. Finucane, M.D.
Secretary, Commission on Licensure to Practice the Healing Art, District of Columbia

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Baltimore, Md., December 6, 1957

To Mr. Gasch:

Attorney General Sybert has requested me to reply to your letter of recent date regarding borderline licenses.

As I understand the situation, the Board of Medical Examiners of Maryland has in the past been issuing so-called borderline licenses to doctors licensed to practice medicine in the District of Columbia or other states bordering on Maryland. While this practice has been followed in the past there has been no statutory authority for such practice, and therefore the Board reviewed the matter, especially in light of the abolishment of the Homeopathic Board of Medical Examiners and the Reddick situation, and decided that borderline licenses could not be issued under the present law.

However, I would like to point out that under Article 43, Section 138 of the Annotated Code of Maryland (1957 Cum. Sup.) a Maryland medical license is not necessary and the provisions of that subtitle shall not "apply to physicians or surgeons residing on the borders of a neighboring state, and duly authorized under the laws thereof to practice medicine or surgery therein, whose practice extends into the limits of this State; provided, that such practitioners shall not open an office or appoint places to meet their patients or receive calls within the limits of this State without complying with the provisions of this subtitle; provided that the same privileges be accorded to licensed physicians of this State. . . ."

Of course under this Section no borderline license is authorized or necessary if the District of Columbia physician falls in that category.

It is my opinion that under the above statute borderline licenses from the Maryland Board are unnecessary and it seems it was the intent of the Legislature in enacting it to allow such borderline practice.

I hope this matter can be resolved to the satisfaction of both Boards.

Sincerely,
James H. Norris, Jr.
Special Assistant Attorney General of Maryland

News and Personals

MEETINGS

The Department of Pathology of George Washington University School of Medicine is sponsoring a special lecture series during the winter and spring months. The first two have been given; those to follow are:

Tuesday, February 25: "The Pathogenesis of Hepatic Cirrhosis," Edward A. Gall, M.D., Emery Professor of Pathology, University of Cincinnati College of Medicine

Wednesday, March 5: "Lathyrism," J. Lowell Orbison, M.D., Whipple Professor of Pathology, University of Rochester School of Medicine and Dentistry

Wednesday, April 16: "Pathology of the Placenta," Arthur T. Hertig, M.D., Shattuck Professor of Pathology, Harvard Medical School

Tuesday, May 6: (Topic to be announced) W. A. D. Anderson, M.D., Professor of Pathology, University of Miami School of Medicine.

There is no registration fee. Members of the Medical Society are cordially invited to attend. All lectures are held in Hall A of the School of Medicine at 1335 H Street, N.W., from 4 to 5 p.m.

The Washington School of Psychiatry is bringing to Washington outstanding faculty members as lecturers on "Character in Literature and Psychoanalysis." Lectures are scheduled for:

Monday, February 24: "Character as Invention," Allen Tate, Professor of Literature, University of Minnesota

Monday, March 31: "The Self and Its Masks," Eliseo Vivas, John Evans Professor of Moral and Intellectual Philosophy, Northwestern University

Monday, April 28: "Oedipus According to Freud, Sophocles and Cocteau," Francis Fergusson, Professor of Literature, Rutgers University.

The lectures begin at 8 p.m. at the Jewish Community Center, 16th and Que Streets, N.W. Tickets are available at $2 each at the lecture hall.

The Medical Council of the Washington Metropolitan Area and the William S. Merrell Company will co-sponsor a **Medical Economics Forum** for physicians, to be held in the Presidential Ballroom of the Hotel Statler on Thursday, March 27. Distinguished speakers from all parts of the United States will participate.

The forum will be devoted to three subtopics: The Doctor and the Law, The Doctor and His Office, and The Doctor and His Life Planning. The program for the first of these has been tentatively scheduled, with Mr. C. Joseph Stetler, Director of the Law Department of the American Medical Association, as moderator. He will also give a 20-minute report on the results of a survey the AMA has just completed on medical professional liability. Mr. R. Crawford Morris, distingusihed Cleveland attorney, will speak on "The Trends in Medical Professional Liability Cases with Respect to the Doctrine of *Res Ipsa Loquitur*." Mr. Bernard D. Hirsh, certified public accountant on the staff of the AMA, and Mr. Robert B. Murphy, legal counsellor for the Wisconsin State Medical Association, will both discuss "Tax Problems Confronting the Physician."

The Medical Council is composed of representatives of the medical societies of Montgomery County and Prince Georges County (Maryland), Arlington County, Fairfax County, and Alexandria City (Virginia), and the District of Columbia.

A Course in Electrocardiography, now in progress at **Georgetown University Medical Center,** began February 6 and will continue for 18 weeks. The first 12 lectures will be given by Dr. Robert P. Grant, of the National Heart Institute, NIH, Bethesda, Md., and the last 6 by Dr. W. Proctor Harvey, Associate Professor of Medicine at Georgetown. Any physician interested in this subject is cordially invited to attend whenever possible. The lectures are held in the Medical School Building, Room 101, Mondays and Thursdays, from 4:30 to 6 p.m.

The 26th Annual Postgraduate Clinic of the District of Columbia Dental Society is scheduled to be held at the Shoreham Hotel, March 9–12, 1958. A unique feature of this Clinic is the Opening Luncheon, March 10, when there will be a clinic discussion at each of 30 tables. Attendance will be limited to 10 per table. Among the clinicians who will preside at these table discussions are 2 members of the District Medical Society, Drs. Seymour Alpert and Monroe J. Romansky. Dr. Alpert will lead discussion on "Emergencies in Local and General Anesthesia" and Dr. Romansky, on "Use of Antibiotics in Dentistry."

The Washington Psychiatric Society will hold its annual meeting on March 28 in the Medical Society's building. Guest of honor will be Dr. Harry C. Solomon, Professor Emeritus of Psychiatry, Harvard Medical School, who is President of the American Psychiatric Association.

GENERAL NEWS

The **Executive Board of the Medical Society of the District of Columbia** met in regular session on December 30, 1957. The Secretary advised the Board that officials from the Office of Dependents' Medical Care have asked to meet with representatives of the Medical Society, July 1 and 2, 1958, in connection with the contract covering the Medicare program. Drs. Ralph M. Caulk, C. Willard Camalier, and Edward W. Nicklas were designated the Society's negotiators, the delegation to be headed by Dr. Caulk.

Dr. James C. Walsh was appointed to represent the Society on the Program and Planning Committee for the Youth Fitness Conference to be held in Washington, February 13 and 14.

President Watts submitted the following appointees, who were approved by the Board, to serve as chairmen of committees for the 27th ANNUAL SCIENTIFIC ASSEMBLY:

Scientific Program: Dr. George E. Schreiner
Scientific Exhibit: Dr. Howard S. Madigan
Motion Pictures: Dr. Paul R. Wilner
Attendance: Dr. Frank S. Ashburn
Social Affairs: Dr. Alejandro F. Castro
Finance: Dr. Frederick B. Hartsock

The Secretary reported that he had been visited by a representative of the Schering Corporation, who presented the Society with a framed map, in color, portraying the highlights of the historical development of Medical America as it relates to the District of Columbia. The Board requested the Secretary to express the Society's thanks to the Schering Corporation for this map, which hangs in the Board Room.

An independent **Medical Advisory Committee to Medical Service of the District of Columbia** was formed in November, 1957 and the following officers were elected: Dr. William B. Walsh, *Chairman*; Dr. Edward W. Nicklas, *Vice Chairman*; and Dr. Vasilios S. Lambros, *Secretary*.

This committee consists of representatives of various specialty sections of the Medical Society of the District of Columbia and adjacent medical societies in Maryland and Virginia. It is responsible to neither the parent medical society nor to Medical Service, but the group sends a representative to MSDC Board meetings when problems of a particular section or specialty are to be discussed.

D. C. members of the group and the section or specialty of the District of Columbia Medical Society which they represent are as follows:

Dr. Joseph F. Belair—Radiology
Dr. Alan J. Chenery—Urology
Dr. Herbert S. Gates—General Practice
Dr. Everett J. Gordon—Orthopedics
Dr. Ernest A. Gould—Surgery
Dr. Naomi M. Kanof—Dermatology
Dr. Edward M. O'Brien—Otolaryngology
Dr. George Maksim—Pediatrics
Dr. Joseph P. Murphy—Neurology
Dr. Edward W. Nicklas—Gastroenterology
Dr. Robert B. Nelson, Jr.—Obstetrics and Gynecology
Dr. J. L. Helfgott—Ophthalmology
Dr. William B. Walsh—Internal Medicine
Dr. William E. Bageant—Anesthesia
Dr. Vasilios S. Lambros—Neurosurgery
Dr. Oscar B. Hunter, Jr.—Pathology

Adjoining medical societies are represented by the following physicians:

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
November 3	Dr. Charles F. Geschickter Dr. Jack E. White	Panel Discussion on Cancer Research in Local Universities	Georgetown University Radio and TV Program
November 6	Dr. Robert J. Sherman	Cancer Cytology	Military, Sea, Transportation Service, Navy Department
November 7	Dr. Edward Adelson Dr. Charles E. Rath, Jr.	Panel Discussion on the Lymphomas	St. George Society (medical students)
November 20	Dr. Cyril A. Schulman	Cancer	Interstate Commerce Commission (employee group)
November 21	Dr. John M. Keshishian	Cancer	Naval Wives Club
January 6	Dr. Julius Schreiber	Understanding the Emotional Sources of Marital Conflict	Jewish War Veterans of D. C.
January 14	Dr. Robert Stolar	The Physician Looks at Health Education	Health Educators Conference of the Metropolitan Area
January 21	Dr. Herbert P. Ramsey	The Washington Medical Scene	Columbia Historical Society

Montgomery County: Dr. Read N. Calvert
Prince Georges County: Dr. William A. Holbrook
Alexandria City: Dr. F. Preston Titus
Arlington County: Dr. Lloyd B. Burk, Jr.

Fairfax County has not yet named its representative.

The Department of Psychiatry of the University of North Carolina School of Medicine (Dr. George C. Ham, Professor and Chairman of the Department, and Dr. Lucie Jessner, Professor and Director of the Child Psychiatric Section) announces the opening on February 1, 1958, of a 9-bed **Child Psychiatric Inpatient Service** in the North Carolina Memorial Hospital for intensive diagnostic evaluation and short-term therapy of emotionally disturbed children under 12 years of age. Children may be referred as private or as staff patients from North Carolina and as private patients from other states. Inquiries should be addressed to the admissions Officer, Psychiatric Center, North Carolina Memorial Hospital, Chapel Hill, N. C.

The Doctors' Symphony Orchestra is rehearsing every Thursday evening at 8 p.m. at the Perpetual Building and Loan Association in Bethesda, Maryland. Dr. Richard H. Todd, President of the Orchestra, promises a concert in the near future.

The Third Annual Medical Education Week is scheduled for April 20–26.

News concerning the **Washington Hospital Center** will appear in a new publication to be known as *The Center Line.* The no. 1 issue, dated January 1958, features the first of a series of thumbnail sketches and photographs of the heads of the medical departments of the new Center. Those appearing in the January issue are: Dr. Theodore J. Abernethy, Chairman of Internal Medicine; Dr. Crenshaw D. Briggs, Chief of the Department of General Surgery; Dr. Edgar W. Davis, Chief of Thoracic Surgery; Dr. Harold W. Krogh, Chairman, Clinical Department of Oral Surgery; Dr. Joel N. Novick, Chief of Otolaryngology; Dr. Hugo V. Rizzoli, Chairman of Neurosurgery; Dr. G. Victor Simpson, Chief of

Ophthalmology; Dr. J. Ogle Warfield, Jr., Chairman of the Department of Surgery; and Dr. John A. Washington, Chief of Pediatrics.

The issue also contains a number of photographs taken at the dedication of the Center, December 1.

Mrs. Grace Berman, who has been in charge of Public Relations at Emergency Hospital, is the Editor and head of Public Relations at the Center. She is the wife of Dr. Irving L. Berman, who is this year completing a residency in psychiatry at St. Elizabeths Hospital.

During the summer of 1957 the **Baltimore-Washington Dermatological Society** was dissolved and two distinct and independent societies were organized. On November 14, 1957, the new **Washington, D. C. Dermatological Society** elected the following officers:

Dr. Arnold H. Gould, *President*; Dr. Wendell M. Willett, *Vice President*; and Dr. Marc A. Weiner, *Secretary-Treasurer*.

Dr. Herbert P. Ramsey is the newly elected President of the **Pan American Medical Society.** The other officers are:

Dr. Bernard E. Nunez, *First Vice President*; Dr. J. Ogle Warfield, *Second Vice President*; Dr. James H. Scully, *Secretary*; and Dr. Adrian Recinos, Jr., *Treasurer*.

The Arlington County Medical Society has elected the following officers to serve during the coming year:

Dr. Thomas A. McGavin, *President*; Dr. Stephen J. Sheehy, *President-elect*; Dr. Robert L. Norment, *Vice President*; Dr. Bertram C. Snyder, *Secretary*, and Dr. Michael A. Puzak, *Treasurer*.

Dr. Sheehy, who will take office in 1959, and Dr. Snyder are Associate members of the D. C. Medical Society, and Dr. Norment, an Affiliate member.

PERSONALS

Dr. William S. Anderson succeeded Dr. William F. Burdick as Chairman of the Medical Staff of **Children's Hospital** on January 1.

Dr. Anderson

Dr. Anderson is a graduate in medicine of Johns Hopkins University (1931). He interned at Johns Hopkins Hospital the following year and served a three-year residency in pediatrics at New York Hospital, 1932 to 1935. During the latter year he became a member of the staff of Children's Hospital. He was elected Secretary-Treasurer of the medical staff in 1953.

Dr. Anderson is Clinical Professor of Pediatrics at George Washington University; consulting pediatrician to Emergency and Episcopal Eye, Ear and Throat Hospitals; and Attending Pediatrician at Garfield Memorial and George Washington University Hospitals. He is a diplomate of the American Board of Pediatrics and a Fellow of the American Academy of Pediatrics.

Dr. Charles E. Fierst was elected Vice Chairman of the medical staff, and **Dr. Milton M. Greenberg,** Secretary-Treasurer.

Dr. William B. Walsh has just received two Presidential appointments. On January 15 he was among 5 persons named to the National Advisory Committee on the Selection of Physicians, Dentists, and Allied Specialists. This is an advisory committee to Selective Service which will coördinate the needs of the armed forces for physicians and dentists with civilian needs.

The following day his appointment to the Health Resources Advisory Committee of the Office of Defense Mobilization was announced by Gordon Gray, who is the Director of Defense Mobilization. This committee will advise the Director of ODM on matters in the health field as they relate to mobilization programs.

Dr. Roy Hertz, Chief of the Endocrinology Branch, National Cancer Institute, received the 1957 Anne Frankel Rosenthal Memorial Award for Cancer Research, consisting of $1,000, at the Annual

Meeting of the American Association for the Advancement of Science in Indianapolis, Ind., December 28.

Dr. Hertz

According to an article which appeared in *Science*, January 3, 1958, Dr. Hertz and his colleagues have been concerned with the endocrine factors involved in normal and cancerous growth for the past decade. "In 1947 Dr. Hertz showed that hormone-dependent organs, such as the breast and uterus, require for their growth specific dietary factors such as folic acid. He further demonstrated the complete inhibition of such hormone-induced growth by administering folic acid or purine antagonists. . . .

"More recently, in collaboration with Dr. M. C. Li and Dr. D. M. Bergenstal, this knowledge of interference with abnormal tissue growth has been effectively applied in the treatment of a rare but highly malignant tumor of the uterus, namely, choriocarcinoma. . . .

"Dr. Hertz, in collaboration with Dr. William W. Tullner, has also developed the first nonhormonal drug capable of suppressing the output of cortisone and related hormones by the adrenal gland and by tumors arising in this vital organ. This inhibitory substance is called Amphenone. Amphenone is now used in patients suffering either from adrenal enlargement or from adrenal cancer in order to suppress the disorders produced by excessive adrenal hormones. . . ."

Dr. John B. Johnson, Chief of the Department of Medicine, Howard University College of Medicine, will direct research studies in the field of hypertension under a $2,500 Evening Star Research Fund Award. Howard University received the first award, which is one of five presented to Washington universities by the Evening Star Newspaper Company to provide for a faculty research project, selected by the University, for the promotion of distinguished scholarship. Dr. Johnson will use $1,500 of the total grant during the current school year; the remaining $1,000 will be used for faculty research during 1958–59.

Dr. Johnson received his degree in medicine from Western Reserve University. He is a diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians and the American College of Cardiology, and a member of the American Geriatrics Society.

Dr. Frank W. Konzelmann, Director of the Laboratory at Emergency Hospital, received the annual award, a silver goblet, when he was named "Clinical Scientist of the Year" at the Annual Meeting of the Association of Clinical Scientists in Philadelphia, December 13. The award was presented to Dr. Konzelmann by Dr. F. William Sunderman, of Philadelphia, President of the Association (see page 82).

On February 1, Dr. Konzelmann relinquished his duties at Emergency to become pathologist at the Washington Sanitarium in Takoma Park.

Dr. Hunter

At a special membership luncheon at the Hotel Statler, December 16, the Washington Board of Trade honored 15 of its members, 10 of whom are currently serving as presidents of national professional and business organizations, and 5 who headed organizations in 1956. **Dr. Oscar B. Hunter, Jr.,** President of the American Association of Blood Banks, was one of those recognized and presented with a certificate. Among the honorees were: Leon Chatelain, Jr., President of the American Institute of Architects; Robert V. Fleming, President of the Federal Advisory Council to the Board of Governors of the Federal Reserve System; Benjamin M. McKelway, President of Associated Press and Editor of *The Evening Star*; Charles Rhyne, President of the American Bar Association; and Philip M. Talbot, President of the Chamber of Commerce of the United States.

Certificates for outstanding service to Veterans Administration were presented to a number of staff officials and employees of VA Central Office in Washington, D. C. by Administrator Harvey V. Higley before his retirement. Among the five staff officials who received the Administrator's Exceptional Service Award and gold medal was **Dr. William S. Middleton,** Chief Medical Director, who is an Honorary member of the District Medical Society.

Dr. Maurice Z. Cooper, Director of Medical Criteria Editorial Board and an Associate member of the District Medical Society, was one of 16 staff officials who received commendation certificates for outstanding service.

Dr. Addison M. Duval, Assistant Superintendent of St. Elizabeths Hospital, and **Dr. Frank D. Costenbader,** ophthalmologist, were named by Juvenile Court Judge Orman W. Ketcham, January 7, to membership on a 15-member Juvenile Court Advisory Committee. Mrs. Henry Grattan Doyle, who was chairman of the first Juvenile Court Advisory Committee, appointed by Judge Ketcham's predecessor, Judge Edith H. Cockrill, was named chairman pro tem. Drs. Duval and Costenbader will serve for two-year terms.

Dr. George W. Sprehn has been appointed Director of the Community Psychiatric Clinic of Montgomery County, Maryland. He succeeds Dr. Henry A. Segal, who resigned last September to enter private practice. Dr. Sprehn has been serving on an interim basis since November 1. The Clinic, located at the Farmers Bank Building in Rockville, is largely supported by the United Givers Fund.

Dr. Lawrence J. Thomas has been reëlected national Treasurer of the Phi Lambda Kappa medical fraternity. Dr. Thomas was also named Financial Secretary of the Medical Students' Aid Society, a fraternity foundation which assists medical students with loans, scholarships, awards, medical books, etc.

Dr. Benjamin Manchester and Dr. Carolyn H. S. Pincock, alumni of Central High School, were among five cited for their accomplishments by the Alumni Association of old Central High at a reunion at the Shoreham Hotel, December 26, 1957. Some 350 persons attended.

Dr. Manchester, Class of 1929, was honored for significant contributions in the field of anticoagulant therapy.

Dr. Pincock, Class of 1927, was named Medical Woman of the Year in 1956 by the Women's Medical Society (Branch 1 of the American Medical Women's Association). She has completed her twentieth year in the practice of pediatrics in the Washington area. She transferred her membership in the District Medical Society from Active to Associate a year ago when she moved her office to Silver Spring.

Dr. Manchester and Dr. Pincock are both graduates of George Washington University School of Medicine. Dr. Manchester serves on the staff of George Washington as Assistant Clinical Professor of Medicine.

Dr. Peter Noble Lombard, of Silver Spring, Md., was recently elected Governor of the Capital District of Kiwanis. Dr. Lombard is an Affiliate member of the District Medical Society.

Dr. Marcus H. Burton, Associate member of the District Medical Society, was installed as a Vice President of the Washington Kiwanis Club at the annual inaugural luncheon, January 2, at the Mayflower Hotel.

Attending the Clinical Session of the American Medical Association in Philadelphia, December 3–6, 1957, were **Drs. Raymond T. Holden and Victor R. Alfaro,** the Society's official delegates to the AMA; **Dr. Edward W. Nicklas,** Alternate Delegate to Dr. Alfaro; **and Mr. Theodore Wiprud,** Secretary of the Medical Society. The report of the delegates appears in this issue of the ANNALS, beginning on page 87.

Dr. Philip A. E. Stebbing retires as Superintendent of the District of Columbia General Hospital at the end of this month after 30 years of Government service.

Dr. Stebbing is a graduate of Georgetown University, receiving his medical degree in 1930. After interning at D. C. General Hospital, he entered private practice. Two years later, he returned to the Hospital as Admitting Officer and Chief Resident Physician. During the War he served in Army hospitals in New Zealand and Saipan, returning to duty at D. C. General in 1946. He was Medical Superintendent of the institution before he was appointed Superintendent of the Hospital in 1949.

Dr. B. J. Duffy, Jr., began a leave of absence from the Radioisotope Laboratory and Department of Medicine, Georgetown University Medical Center, on January 15, and will be away for nine months.

Under a National Cancer Institute fellowship, he will study radiation cancer at the University of London, where he will be associated with Dr. Richard Doll and Dr. Michael Court-Brown, who have published studies on the incidence of cancer in X-rayed individuals.

Dr. Duffy may be addressed in care of the Statistical Research Unit, London School of Hygiene and Tropical Medicine, Keppel Street, London WC 1, England.

Dr. Sylvan H. Steiner has given up his private practice in order to take a three-year psychiatric residency at High Point Hospital in Port Chester, New York. He began his training on January 25.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

John Jacob Abel, M.D.: Investigator, Teacher, Prophet, 1857–1938. A Collection of Papers by and about the Father of American Pharmacology. Pp. 80. Baltimore: Williams & Wilkins, 1957.

Biochemistry of Some Peptide and Steroid Antibiotics. E. P. ABRAHAM, M.A., PH.D., Senior Research Officer, Sir William Dunn School of Pathology, Oxford University; Fellow of Lincoln College, Oxford. Pp. 96. New York: Wiley, 1957.

Cellular Biology, Nucleic Acids and Viruses. Volume V, Special Publications of the New York Academy of Sciences. Pp. 414. New York: New York Academy of Sciences, 1957.

Symposium on Diseases and Surgery of the Lens. Editor: GEORGE M. HAIK, M.D., F.A.C.S., Diplomate, American Board of Ophthalmology; Professor of Ophthalmology and Head of the Department, Louisiana State University School of Medicine; Ophthalmic Surgeon, American College of Surgeons; Member, American Ophthalmological Society; Member, American Academy of Ophthalmology and Otolaryngology. Associate Editor: ELIZABETH M. MCFETRIDGE, M.A. Art Editor: DON ALVARADO, Assistant Professor of Medical Illustration and Head of the Department, Louisiana State University School of Medicine. Price, $10.50. Pp. 260. St. Louis: Mosby, 1957.

Hospital Accreditation References. Price, paper, $3.25. Pp. 136. Chicago: American Hospital Association, 1957.

The Hangover. A Critical Study in the Psychodynamics of Alcoholism. BENJAMIN KARPMAN, M.D., Chief Psychotherapist, St. Elizabeths Hospital, Washington, D. C. Price, $9.50. Pp. 531. Springfield, Ill.: Thomas, 1957.

LESTER LEON BURTNICK, B. S., M.D.

(1910–1957)

Dr. Lester L. Burtnick died, December 16, 1957, at George Washington University Hospital. He had been engaged in the practice of psychiatry during the past 11 years.

Dr. Burtnick, a native of Baltimore, Maryland, was born, July 19, 1910, to Harry and Daisy Burtnick. After attending the public schools in Baltimore and Baltimore City College, he enrolled for the study of pharmacy at the University of Maryland, graduating in 1933. He received the degree of Bachelor of Science in Pharmacy from the same university in 1936, and through combined curricula of the Schools of Pharmacy and Medicine he received his medical degree the following year.

Following his graduation from medical school, Dr. Burtnick interned at St. Francis Hospital in Santa Barbara, California, 1937–38, and spent a year and a half as resident physician at D. C. General Hospital. He was resident physician at Springfield State Hospital, Sykesville, Maryland, for a year and at St. Elizabeths Hospital for 8 months. At the time of his death he had staff privileges at Doctors, Georgetown, George Washington, and Suburban Hospitals.

Dr. Burtnick enlisted for active duty with the Medical Corps in the United States Army at the beginning of World War II, serving from 1941 to 1946, and rising in rank from First Lieutenant to Major. For two years he was on the staff of Darnall

General Hospital, Danville, Kentucky, and for two years, with the 251st Station Hospital. Going overseas in 1944, he participated in the campaigns of New Guinea, the Philippine Islands, and the Bismarck Archipelago.

Dr. Burtnick was Clinical Assistant Professor of Psychiatry at Georgetown University School of Medicine; he also taught at Howard University. He was associated with Dr. Sidney Berman in offices at 3000 Connecticut Avenue, N. W.

Dr. Burtnick had been an Active member of the Medical Society of the District of Columbia since 1946. He was a diplomate of the American Board of Psychiatry and Neurology, and held membership in the American Medical Association, the American Psychiatric Association, the Medical Society of St. Elizabeths Hospital, the Washington Psychoanalytic Society, and the Jacobi Society.

In addition to his parents, who still live in Baltimore, he is survived by his wife, the former Beverly Miller, and two daughters, Ruth and Leslie, who reside at their home, 4409 35th Street, N. W. He also leaves a sister, Mrs. Maxine Adler, of Silver Spring, Md.

One World in Medicine—Routley

(*Continued from page 60*)

we can demonstrate to other professional groups that we have succeeded in making this a reality, then they may see fit to follow suit. And if they do, they will find that human beings *are* human beings, and not a collection of foreigners.

I know I speak for many doctors when I say, I believe in the brotherhood of man, I believe in the One World of Medicine. I have found by direct observation and experience that this is true. Perhaps this experience may become, in time, universal.

And, a final word which I have consciously left to the last—without the moral, professional and financial support of American Medicine and many of its lay friends, the W.M.A. might ere this have ended as it began, just a promising idea and ideal. Future medical historians will undoubtedly tell the whole story of how our profession demonstrated its belief in the aims and objects of the World Medical Association, and when that story is written the names of many American medical statesmen will emerge; and high on that list will stand the name of Louis Hopewell Bauer, who for 10 years has guided and directed the Association with such conspicuous success.

It has been a very great honor and privilege for me, Mr. President, to bring to this Assembly the greetings of the World Medical Association. If I have in any degree quickened your interest in the challenge which confronts the medical profession throughout the world and encouraged your desire to strengthen in any way you can the World Medical Association to meet this challenge, then I shall feel that the time we have spent together has not been in vain. I am happy to salute the Medical Society of the District of Columbia and to express the hope that in the days that lie ahead your Society will continue to enjoy the confidence and respect of the public whom you serve with such fidelity and to whom your lives are dedicated in the finest traditions of our noble calling.

Study Projects at Clinical Center

(*Continued from page 99*)

4. *Leukemia and Other Forms of Cancer in Children.* The National Cancer Institute is enlarging its studies of cancer in children, particularly leukemia and allied disorders. The purposes of the leukemia study are: improvement in chemotherapy; the trial of new and more active anti-leukemic agents; improved methods in studying and managing infections, bleeding, and other complications; and basic studies of the nature of the leukemic process.

Infants and children under 15 with other forms of cancer are studied from several viewpoints, including etiologic factors, new or improved therapies, and metabolic or endocrine aspects.

Membership

(*Continued from page 101*)

John H. Tuohy, Georgetown University—1946
Stanley W. Weitzner, New York University—1953

For Resident-Intern Membership

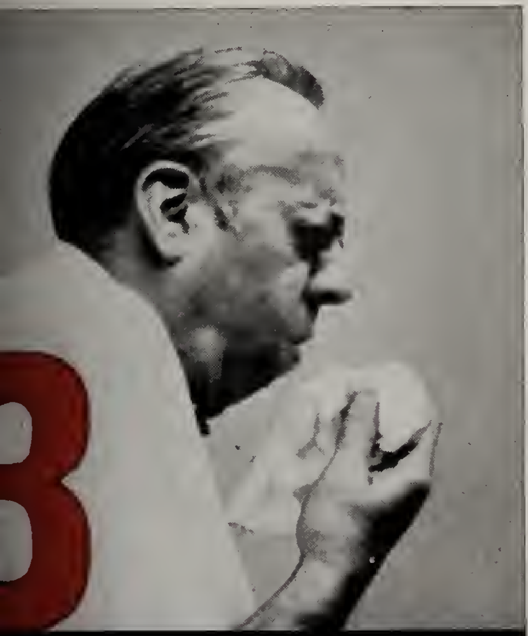
Herbert A. Bloomer, Marquette University—1954
Kamel Hassan, Georgetown University—1952
Albert J. Miele, George Washington University—1954
Richard C. Vadney, Georgetown University—1957

THE FIRST TROCHE TO PROVIDE THREEFOLD BENEFITS

'PENTAZETS'

TROCHES

NON-NARCOTIC ANTITUSSIVE EFFICACY SHOWN TO APPROXIMATE THAT OF CODEINE



NOW COUGH CONTROL TOO

With the addition of a non-narcotic antitussive to troche medication, 'PENTAZETS' provides a new and extended therapeutic advantage in this convenient form of treatment.

Treatment of the cough too, so often a troublesome symptom of sore throat, combined with wide-range antibiotic activity and soothing analgesic benefit, now offers *three*fold relief in a variety of throat irritations.

And 'PENTAZETS' are pleasant-tasting, too, making them highly acceptable, especially to children.

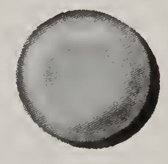
'PENTAZETS' contains:

- *Homarylamine*—a new non-narcotic antitussive with cough control shown to approximate that of codeine.
- *Bacitracin-Tyrothricin-Neomycin*—a combined antibiotic treatment against many pathogenic organisms with little danger of unfavorable side effects.
- *Benzocaine*—a local anesthetic for soothing relief to inflamed tissues. Being slowly absorbed, it is especially beneficial for prolonged effect and benefit to surrounding areas.

Supplied: Vials of 12.

Each 'PENTAZETS' troche contains:

Homarylamine hydrochloride	20 mg.
Zinc Bacitracin	50 units
Tyrothricin	1 mg.
Neomycin sulfate (equivalent to 3.5 mg. neomycin base)	5 mg.
Benzocaine	5 mg.



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Book Reviews

Bacterial Fermentations. H. A. Barker, Ph.D. Pp. 95. New York: Wiley, 1957.

This book is based on a series of 3 lectures given in April, 1956 at the Institute of Microbiology, Rutgers University. The material is restricted to certain aspects of bacterial fermentation approached from the biochemical aspect of energy-yielding processes of certain groups of organisms. Three types of fermentation are considered: the biological formation of methane; fatty acid metabolism as studied by the Butyric Acid-Butanol Fermentations; and the fermentation of nitrogenous compounds.

Dr. Barker presents the biochemical pathways of these metabolites based upon his observations and experimentations over an extensive period. The subjects are logically developed and numerous pitfalls in the study and interpretation of data are pointed out. The incompleteness of the available data does not permit the concluding chapters of the investigations to be presented. However, many stimulating challenges are developed.

The subject matter and the simultaneous presentation of bacteriologic and biochemical material in narrowly confined fields will restrict the book to those workers who have special interest and advanced training in the field of bacteriology. To this group the book should be a valuable reference volume.

Edward C. McGarry, M.D.

Management of Complications in Eye Surgery: Avoidance of Pitfalls and Treatment of Difficult Situations in Ophthalmologic Operations. Edited by R. M. Fasanella, M.D., with contributions by 20 Authorities. Price, $16.00. Pp. 422, illustrated. Philadelphia: Saunders, 1957.

The book is a first edition, comprising some 400 pages, and published in 1957 by the W. B. Saunders Company. It represents the answer to a long-standing need for such a volume by the ophthalmic surgeon. The book consists of chapter contributions by ophthalmologists of prominence in the American field who are in most instances professors or instructors at some of the Nation's outstanding medical schools. It was compiled and edited by R. M. Fasanella, M.D., Chairman of the Section of Ophthalmology at the Yale University School of Medicine. In his preface, the editor states that his book serves as an advanced reference book for those who wish to avoid the pitfalls encountered in the practice of ophthalmology.

The table of contents proves most helpful, taking the patient from preoperative sedation through the operating room to the final dressings and disposition. The book offers advice in the management of complications of eye surgery and injuries. The subjects of the chapters encompass practically any situation in which the ophthalmologist might find himself; even plastic procedures on tissues of globe, lids, and orbit are well detailed in these pages. The problem of medical complications in many patients undergoing eye surgery is well covered, and includes possible medical problems in reference to brain, heart, lungs, blood, thyroid gland, pancreas, and genitourinary system. The problem of complications in adrenal steroid therapy is discussed, but briefly. Diabetic complications are taken up more fully, and for the first time in this reviewer's memory the problem of postoperative psychosis is recognized, and various efforts to minimize its occurrence are advocated.

A one-page notation on page 29 with the heading, "Psychologic and Psychiatric Complications," might with greater effect have been placed in the following chapter on "Psychiatric Aspects of Ocular Surgery" rather than under the chapter on "Medical Complications."

This reviewer was particularly impressed by the individual chapter contribution of R. Townley Paton, M.D., a pioneer in the field of modern ophthalmic surgery. His "Complications of Keratoplasty" contains 2 ingenious devices used in this particular field of surgery. One is Paton's plastic guard to protect the graft from irritation; the other is his modification of Arruga's forceps to protect the delicate endothelium in the pre-placement of sutures in the donor disc.

The other 22 chapters represent ideas and procedures of men who are outstanding in the field of ophthalmology. The material in these chapters is most comprehensive, encompassing years of experience and investigation. Eye operations are thoroughly covered. The ideas embodied in this volume may easily be put to practical use by the ophthalmic surgeon. The book closes with 2 needed and helpful chapters on the rehabilitation of the low-vision patient and the estimation of loss of visual efficiency.

This literary effort is recommended particularly to the ophthalmologist, the ophthalmic surgeon, and the residents in training at our various ophthalmic hospitals.

Thomas A. Egan, M.D.

Current Surgical Management. A Book of Alternative Viewpoints on Controversial Surgical Problems. Editors: John H. Mulholland, M.D., Edwin H. Ellison, M.D., and Stanley R. Friesen, M.D. With contributions by 76 American Authorities. Price, $10.00. Pp. 494, illustrated. Philadelphia: Saunders, 1957.

The editors have assembled 28 controversial surgical

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problems with alternative viewpoints by several authors, usually the leaders in each respective field. Inasmuch as the alternative viewpoints are presented briefly and succinctly, one finds that in very few of the subjects is there little actual disagreement. The differences of opinion largely represent differences in management that are almost limitless, considering the varying stages of diseases. As the editors state, it is impressive to find "... that what appears on the surface to be marked differences of opinion are not so marked when the ideas are more deeply probed." Although I can see no deep probing in this presentation, nevertheless, marked disagreement is not too obvious even in the chapter on papillary carcinoma of the thyroid.

Teachers will find this volume of particular value for informal discussions. Staff members of hospitals will find it particularly convenient in conducting ward rounds.

This is not a textbook or reference work in any sense of the word. However, some references are available.

Francis D. Threadgill, M.D.

Dermatologic Formulary, 2nd ed. From the New York Skin and Cancer Unit, Service of Dermatology (Dr. Marion B. Sulzberger, Director). Revised, 1957. Frances Pascher, M.D., Editor. Price, $4.00. Pp. 172. New York: Hoeber-Harper, 1957.

This formulary, like its predecessor, the first edition, admirably fulfills the purpose for which it was compiled. As stated in the introduction, it was to suit the needs of a large outpatient teaching clinic. Its list of topical remedies and prescriptions is indeed complete and seems to cover the whole gamut of external dermatologic therapy.

The coverage of systemic drugs is likewise adequate and extensive with one exception. Unfortunately, the tranquilizing drugs have not been included in the formulary. Perhaps this is due to the relative newness of these drugs. However, these drugs are useful in dermatology and a written appraisal of them by the competent editor of the formulary would be a valuable addendum to it.

It is to be noted that the formulary also gives the contraindications to the use of the various preparations, as well as the indications. The contraindications in dermatology are often important and one might add an

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(*Continued from page 47*)

extra word of caution about the use of methoxsalin, either as capsules or a lotion for the production of skin pigments. This is a potentially extremely dangerous drug and its use should be limited to those who are quite familiar with its action, as well as its possible harmful effects. The potential danger of this drug should be brought to the patient's attention before it is used.

In general, the book should be quite valuable to the graduate physician in training in dermatology as it contains a wealth of much needed information that just can't be found in any other one volume. As there is often a tendency to narrow one's therapeutic range the longer one practices, the well established practitioner will find that he can easily overcome this tendency by more than occasional reference to this well prepared dermatologic formulary.

Raymond Allen Osbourn, M.D.

New Research Techniques of Neuroanatomy A Symposium Sponsored by the National Multiple Sclerosis Society. Edited by William F. Windle, Ph.D., Sc.D., Chief, Laboratory of Neuroanatomical Sciences, National Institute of Neurological Diseases· and Blindness, National Institutes of Health, Bethesda, Maryland. Foreword by Frederick L. Stone, Ph.D., Director, Medical and Scientific Department, National Multiple Sclerosis Society, New York, New York. Price, $4.75. Pp. 98. Springfield, Ill.: Thomas, 1957.

This is a small monograph of 78 pages in which is enclosed 9 monographs by different authors. Many former research technics applicable to neuroanatomy have been reviewed. In microscopic neuroanatomy the morphology of junctions between nerve cells in the peripheral and central nervous system and the morphology of nerve endings in general; the relationship of glial cell to vessels, neurons and nerve fibers; the nature of glial fibers, neurophil, interstitial ground substance and the blood brain barrier; the structure and development of the myelin sheath in both the central and peripheral nervous system and its relations to the axolemna and the Schwann cell or glial cell; and finally, the ultrastructure of the neurosecretory system are all amply discussed but no conclusive opinion was formulated. It is clear, however, that as these data are assembled the meaning of structural details will become more evident.

The laboratory method of silver impregnation of degenerating axons is presented. Similarly a selective silver impregnation of synaptic endings was also given.

Recent interest in human schizophrenia makes the chapter on Tissue Cultures of added interest. Preliminary results indicate that serotonin brings about a prolonged tonic contraction of the oligodendrocytes which can be reversed or prevented by the serotonin analogous to medmain and one-methyl-medmain. When serotonin is administered together with LSD, the effects of LSD are eliminated and those of serotonin intensified. This suggests the mechanism by which serotonin influences the functioning of the brain.

The interesting method of using a gas which is inert and radioactive for the measurement of local cerebral blood flow is thoroughly illuminating. Radioautographs show clearly the effects of different concentrations of the radioactive gas in various cerebral structures. The method is so exacting that it seems to suggest that there is a diminution in cerebral blood flow when the eyes are closed in the striated cortex and the lateral and medial geniculate ganglia. It emphasizes again that during thiopental anesthesia, the blood flow in a number of cerebral structures is reduced. Quantitative histochemical localization of a large number of substances was examined and acetylcholine esterace continues to occupy the center of interest. This is presumably because it is a more stable chemical substance and that indirectly it measures the acetylcholine activity. Analysis suggests that acetylcholine may take part in the process of conduction in some other manner such as assuming the role of receptors which facilitate the transport of sodium from the external to the internal phase and that, during the resting phase, acetylcholine is combined with these receptors. Sodium might then displace acetylcholine and thus penetrate the membrane when it is depolarized during the passage of an impulse.

It is clear that this book is of a highly technical nature and is of greatest interest to those working in the field of research in the nervous system.

Arthur A. Morris, M.D.

Ciba Foundation Colloquia on Endocrinology, Volume 10: Regulation and Mode of Action of Thyroid Hormones. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Elaine C. P. Millar, A.H.-W.C., A.R.I.C., Editors for the Ciba Foundation. Price, $8.50. Pp. 311, with 114 illustrations. Boston: Little, 1957.

This volume is a compilation of 18 papers with discussions, presented at the 1957 Ciba Foundation Conference in London. It presents the most recent aspects of research in the field of thyroid hormone physiology.

The precise mode of action of thyroid hormone is still unknown, despite the great amount of work which has been done in this field. At the present time the prevailing thought is that thyroid hormone controls the liberation of energy within the cell during biologic oxidations. However, the function of the thyroid gland itself, as well as of the hormone, is closely related to the activity of the other endocrine organs.

Because of the technical aspects of the experimental work reported, this volume will have less interest for the clinician than for the thyroid physiologist.

Louis K. Alpert, M.D.

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MEDICAL RADIATION HAZARDS AND THE RESPONSIBILITIES OF THE MEDICAL PROFESSION*

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Chief, Radiation Branch, National Cancer Institute, National Institutes of Health, Public Health Service, Department of Health, Education, and Welfare

IN THE SUMMER of this year (1957) the Scientific Committee on the Effects of Atomic Radiation established by the United Nations General Assembly released a statement to the medical press entitled, "The Responsibilities of the Medical Profession in the Use of X-rays and Other Ionizing Radiation."[1] In summary, this statement said:

> "The Scientific Committee on the Effects of Atomic Radiation established by the United Nations General Assembly accepts the view that the irradiation of human beings, and especially of their germinal tissue, has certain undesirable effects.
>
> "Information received so far indicates that, in certain countries (Sweden, United Kingdom, United States of America), by far the most important artificial source of such irradiation is the use of radiological methods of diagnosis and that this may be equal in importance to radiation from all natural sources. It is possible that such radiation may be having a significant genetic effect on the population as a whole.
>
> "The Committee is fully aware of the importance and value of the medical use of radiations but wishes to draw the attention of the medical profession to these facts."

Such a statement as this is not, of course, made irresponsibly. Part of the purpose of this presentation is to explore the reasons for such a statement and to encourage the application of lessons which can be learned from a study of the facts. As is indicated by the title, this presentation is concerned with two aspects of the radiation problem, one, the actual definition of the hazard as it may exist in medical practice and, two, what the medical profession may do to eliminate or to minimize the hazard.

Reference has been made to so-called background radiation. This is something with which we live; this is a component of the environment in which man as a species, the other fauna, and all the flora have evolved. It is in the space around us; it is in the buildings in which we live; it is in our food and drink so that it is also within our bodies; and if we go underground to escape it we find that it is in the rocks into which we burrow. So, if this background radiation is not exactly beneficial it is not, apparently, harmful to man, at least to man as he has evolved as a species. The source and amount of this ionizing radiation are shown in table 1.[2]

---

* Read before the Toledo Academy of Medicine in Toledo, Ohio, November 8, 1957.

TABLE 1
Naturally Occurring Ionizing Radiations

Cosmic radiation	0.78 rem*
Earth and housing	1.59 rem
Atmospheric	0.06 rem
Internal (beta and gamma)	0.54 rem (K-40, C-14, Ra)
Internal (alpha)	0.15 rem (Ra)
Total (one generation, 30 yrs.)	3.12 rem

* Rem, approximately equal to r but taking into account certain factors of biologic response or effectiveness.

The other sources of ionizing radiations are man-made. These include weapons, power reactors, and medical radiations. A discussion of the weapons hazard is inappropriate to this presentation, and a discussion of power reactors is outside its scope. There remain, then, for our consideration the medical radiations. These include diagnostic and therapeutic X-ray and X-ray substitutes such as cobalt 60, radium, and artificially produced radioactive isotopes.

It is recognized, of course, that over a lifetime some individuals receive no exposure to medical radiations while others may receive a large amount. From experience of various sorts it would be possible, however, to derive what one might speak of as an average total cumulative dose which each person in the United States receives over a certain period of time, say, the 1 generation time or the reproductive time, about 30 years, and various studies and experiences[2, 3, 4] suggest that this average dose, from diagnostic X-rays only and to a specific portion of the body, the gonads, is of the order of 4 rem. This dose is derived from the various component procedures of diagnostic radiology as shown in table 2.

It is apparent, then, that the average exposure of the American population from medical diagnostic X-rays is of the same order as or even a little greater than the exposure from background radiation.

It is well known to all physicians that ionizing radiations may produce deleterious effects. As early as 1902, only 7 years after the discovery of the X-rays, Frieben[5] reported a case of radiation-induced cancer of the human hand. The deleterious effects which first come to mind are the very gross effects such as the induction of cancer, including leukemia, ulceration and necrosis, and cataracts. Some of these gross effects, such as the induction of cancer and of cataracts, are commonly the result of assumed calculated risk and occasionally the result of accident. These are not the effects which concern us here because cause and effect are clearly related. Of greatest concern are those effects which might be termed subtle. These are the relationship of thyroid cancer to thymus irradiation, the induction of leukemia, genetic effects, and, possibly, shortening of the life span. I call these effects subtle as meaning that the relationship between cause and effect may be obscure and as implying that the effect may be caused by what we term very small doses of ionizing radiations.

TABLE 2
Average Gonadal Dose, Diagnostic Radiology

4.0 rem in 30 years
Obstetrical radiography, 18%
Other radiography, 45%
Fluoroscopy, 37%

As to the establishment of the relationship between cause and effect for these subtle manifestations of the deleterious effects of ionizing radiations, it is only within the last 10 years that a sense of awareness has developed. Let us see how this has come about. Let me first quote a statement made at a joint meeting of the obstetrical, gynecological and pediatric societies of Pittsburgh on February 3, 1947. I quote from the conclusion of the presentation of Conti and Patton[6]:

> "Infants exhibiting symptoms commonly attributed to thymus enlargement should have roentgenograms. If the

thymus shadow is enlarged roentgen therapy is indicated. The obstetrician or pediatrician should accede to the wishes of parents who want neonatal roentgenograms of their children. It might even be wise to administer therapeutic dosage over the thymus. Whatever assurance is gained by this apparently harmless and perhaps beneficial procedure will aid in alleviating anxiety which occasionally becomes a thymus-phobia."

This was the status 10 years ago. Then, in 1950, Duffy and Fitzgerald[7] studied 21 patients under the age of 18 with thyroid cancer seen at the Memorial Hospital in New York City. Ten of these 21 had been irradiated over the chest in infancy for symptoms thought to be due to enlargement of the thymus. These data were only suggestive, and they did not prove a causal connection because there was no information about the proportion of irradiated children in the population from which these cases were drawn. But in 1955 Simpson[8] seemed to show beyond a reasonable doubt that irradiation of an infant's thymus does increase the probability that cancer of the thyroid will develop later. She followed the histories of the 1,400 children in their clinic that had received radiation to the thymus in infancy and of a like number of brothers and sisters of these children. Among the children who were irradiated cancer of the thyroid appeared in 6, whereas it appeared in none of the unirradiated children over the same period of years. The probability that this difference is due to chance is less than 1 in 100. All of the children that developed cancer of the thyroid received between 200 and 600 r to the chest. In 1955 Clark[9] reported that in every one of the 13 children who came under his care for the treatment of thyroid cancer there was a history of previous irradiation to the head, neck or upper thorax within the first 6 years of life. Again, considering sample size and probabilities it is extremely unlikely that his findings are due to chance, and Simpson's and Clark's findings may be accepted as strong evidence that irradiation of the thymus in infancy and childhood increases the incidence of cancer of the thyroid.

That human leukemia may be induced by exposure to ionizing radiations there is now no doubt. In the early history of medical radiology an apparent causal relationship between an increased incidence of leukemia and occupational exposure, that is, the professional worker in medical radiology, was observed. This relationship has been fully verified in recent years, and it is now apparent that the incidence of leukemia in radiologists is some 8 or 9 times the incidence of leukemia in other physicians.[10, 11]

A comprehensive study of 13,352 patients treated with X-rays for ankylosing spondylitis at 81 British radiotherapy centers has been made by Court Brown and Doll.[12] This study showed that of 13,352 patients given spinal irradiation for ankylosing spondylitis 28 died with leukemia while the expected incidence of leukemia in this group is only 3.

Abbatt and Lea[13] studied the causes of death among a group of patients suffering from ankylosing spondylitis but not treated with X-rays. This study provided no evidence of an association between alkylosing spondylitis and leukemia in the absence of therapeutic irradiation. In other words, then, irradiation of the spine results in an increased incidence of leukemia (and, incidentally, of aplastic anemia), and this is related, quantitatively, to the dose.

Dr. Robert Miller of the Atomic Bomb Casualty Commission has reported to me that the incidence of leukemia in cases which showed epilation or purpura (suggesting a total body dose of some 300 r) may be as high as 80 times the normal leukemia incidence.

Finally, in a very suggestive study by Alice Stewart[14] it is reported that of children dying of leukemia and other forms of cancer nearly twice as many mothers said that they had been subjected to X-ray examinations of the abdomen during pregnancy as did the mothers of the control children.

Now, to move on to the genetic effects. The demonstration of a mutation in the human is a much more subtle thing than the recognition of leukemia. There is, in fact, no known human mutation due to irradiation of the gonads. Practically all that we know about radiation mutations comes from the classical and continuing work with the fruit fly, from studies of plant genetics, and from very limited genetic studies of the mouse. It is believed, however, that principles which can be developed from the studies of such species are directly applicable to the human species. If, for example, certain genetic aberrations are occurring in the human race because of the natural background of ionizing radiation, then it can be inferred that if the amount of radiation received is increased the number of mutations will likewise be increased and that there is a proportionality factor for dose and incidence which can be predicted. Further, from the point of view of the human race and the occurrence of mutations, and, possibly, the perpetuation of genetic aberrations, a small exposure to a large population group is just as important as a large exposure to a single individual. In other words, if a certain individual exposure results in a probability of a mutant of 1 out of 10 conceptions one-tenth of this exposure given to 10 individuals would result in the same probability of a mutant, that is, 1 out of every 10 conceptions in the group. In other words, there is an exact quantitative relationship between the dose administered and the probability of mutation, and this, presumably, is a completely cumulative effect for discontinuous exposure.

An equally subtle effect is the apparent shortening of the life span or the acceleration of the aging process by exposure to ionizing radiations. That this occurs is inferred but by no means proved.[11, 15] It is estimated that a 1 r dose of total body radiation decreases the life span of man by 10 days. This obviously would be an impossible thing to detect, but if it is true it may be calculated that for the total population some enormous number of man-years would be lost per year. In other words, a perfectly astounding figure can be developed in dealing statistically with something which is extremely subtle to demonstrate.

So then, in summary, it is evident that a causal relationship exists between irradiation and cancer of the thyroid and leukemia; it is probable that a causal relationship exists between irradiation and human mutation; and it is conceivable that a causal relationship exists between irradiation and shortening of the life span.

Now let us see what the quantitative nature of this causal relationship is in order to determine the importance of medical radiation exposure. The importance of medical radiation exposure or, for that matter, any other radiation exposure is that for the deleterious effects discussed the evidence suggests that there is no threshold dose. When prescribing drugs one thinks ordinarily in terms of a threshold or minimal dose required to produce the desired physiologic effect. As regards radiation such thresholds may not exist, there being, apparently, a relationship between cause and effect for any dose, no matter how small, and the relationship is a quantitative one. In fact, the quantification of this relationship is, even at the present time, fairly accurate as concerns the incidence of leukemia. These quantitative relationships are demonstrated in table 3 for

TABLE 3

Leukemia and Radiation Therapy of Spondylitis

Dose to Spinal Marrow (r)	Incidence (per 10,000)
0	0.5
Less than 500	2.2
500 to 1,000	4.1
1,000 to 1,500	4.2
1,500 to 2,000	11.3
2,000 to 2,750	13.0
More than 2,750	17.6

TABLE 4

Leukemia in Hiroshima

Distance from Hypocenter (meters)	Incidence (per 10,000)
3,000	1.6
2,000 to 3,000	2.3
1,500 to 2,000	3.8
1,000 to 1,500	28
1,000	128

the incidence of leukemia in respect to the dose of ionizing radiation to the spine in the treatment of ankylosing spondylitis, and in table 4 for the incidence of leukemia among the survivors of the atomic bomb in Hiroshima in respect to distance from the bomb. These relationships are shown graphically in figure 1.

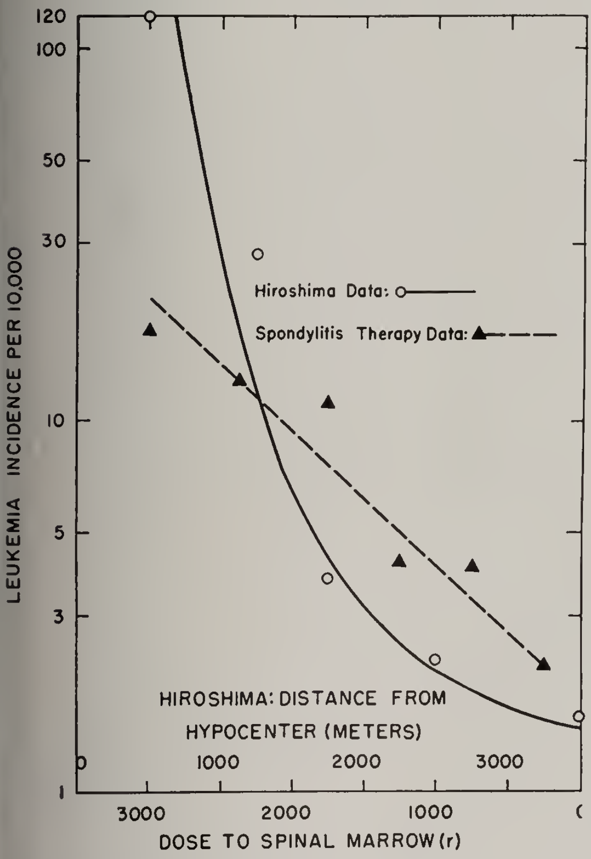

FIG. 1. Relationship between the incidence of human leukemia and exposure to ionizing radiations.

The point, then, which must be stressed is this: For the deleterious effects of ionizing radiations in the induction of cancer of the thyroid and of leukemia, in the production of mutations, and in shortening of the life span the best hypothesis is that the incidence of these effects (following all but the highest doses of radiation) is directly proportional to the dose received and that this proportional relationship may hold even for the lowest doses. This being, presently, the best working hypothesis, it follows that medical radiation procedures should be submitted to a critical reëvaluation because medical radiology is the chief source of the ionizing radiations to which man presently is exposed, with the exception of those radiations of natural occurrence, and because this present level of medical radiation exposure is already approximately equivalent to this naturally occurring background radiation.

Practices do vary, of course, from one practitioner that uses X-ray equipment to another, from institution to institution, and variation in equipment itself introduces variation in the degree of exposure of subjects. There is an abundant literature on this subject but, even so, the information is incomplete. Until such time, however, as a planned survey can be conducted the best that can be accomplished is simply to summarize the available information. Such a summary has been prepared by Laughlin and Pullman[4] for the Genetics Panel of the National Academy of Science's study of the biologic effects of atomic radiation. It is entitled, "Gonadal Dose Received in the Medical Use of X-rays," and, as the title indicates, it concerns itself only with the gonadal dose received by individuals undergoing a great variety of medical radiation procedures. The gonadal dose is selected as the most sensitive, and, perhaps from the point of view of human society, the most important of the parameters of exposure which can be assessed. This is summarized as shown in table 5.

I should like to make some mention here of who is using X-ray equipment and where it is being used. Of 63,500 X-ray units in use by the healing profession, excluding the dental profession, in 1949, 28 per cent were in hospitals, clinics, and radiologists' offices, and all of these are assumed to be supervised by radiologists. Fifty per cent were in the hands of general practitioners and non-radiologists. Twenty-two per cent were in the hands of osteopaths, chiropractors and chiropodists. In other words, almost three-quarters of the medical X-ray units employed by the healing professions were in the hands of those who by virtue of training and interest would not be expected to be as fully informed as concerns the operating characteristics of the equipment, the protective devices which might be employed with the equipment, or the optimal procedures to be used in a given medical problem.

TABLE 5

Summary of Average Gonadal Doses from Medical Diagnostic X-ray Examinations Received per Person during 1 Generation (30 Years) by the Population of the United States

X-Ray Diagnostic Examinations	Probable Gonadal Dose (r)
Radiography	1.8
Fluoroscopy	1.5
Photofluorograms and mass chest X-rays	0.006
Dental X-rays	0.1
Obstetrical X-rays	0.7
TOTAL DIAGNOSTIC DOSE	4.1

TABLE 6

Radiation Doses Received by the Skin and Gonads in Radiographic Examinations at the Atomic Energy Research Establishment, Harwell, England

Exam.	KV	mAs	FSD (in.)	Added Filter (mm Al)	Dose per Exposure (r)		
					Skin Dose	Male Gonad	Female Gonad
Sinuses	80	40	27	3.0	1.04	0.0001	0.00005
Chest, PA	90	3	72	3.0	.008	0.00001	0.00002
Lumbar Sp., Lat.	85	(Bucky) 300	44	3.0	2.0	0.002	0.3
IVP	75	(Bucky) 80	44	3.0	0.5	0.0005	0.1
Fluoro chest*	75	(3 min) 90	18	5.0	0.9	0.003	0.003
Fluoro GI*	75	(5 min) 150	18	5.0	1.5	0.005	0.005

* Image intensification.

These summary data represent, of course, experience. They represent what has been done and not, necessarily, what is being done. Certain it is that they do not represent what can be done, in establishing optimum procedures for minimizing patient exposure. That such optimum procedures can be developed is evidenced by the published data from the British Atomic Energy Establishment at Harwell[16] which might properly serve as a model for all of us that are concerned with the medical application of ionizing radiations. The gonadal doses delivered in respect to representative types of diagnostic and fluoroscopic X-ray examinations along with certain technical factors in use at Harwell are shown in table 6.

We have so far developed the relationship between cause and effect; evidence has been developed which indicates that some of the deleterious effects of ionizing radiations may be non-threshold effects; and data suggesting that medical radiation procedures are not all that they could be have been presented. It now remains to see how radiation procedures can be modified in order to afford human society the greatest protection from these deleterious effects of ionizing radiations. This aspect of the problem could properly be considered in 2 parts. One is the technical, that is, the adequacy of the equipment and the technics employed, and the other is applications or the indications for the use of such equipment in medical practice.

The technical aim of every X-ray diagnostic procedure must be to expose the patient to the absolute minimum of radiation essential to the performance of the examination. A check list can be developed to insure that this requirement will be met. Such a check list would include the periodic testing of the machine for output and for leakage; the presence of at least 2 mm. of aluminum filtration; the use of high kilovoltage radiography in order to diminish the proportion of inefficient or useless low energy rays, and to reduce, through reduction of milliampere seconds required, the actual amount of radiation; the use of high speed fluoroscopic and intensifying screens; the rigid use of shutters and other collimating devices to confine the X-ray beam to the part examined; the use of fast films; consideration of the use of image intensifiers which, while expensive, do permit a reduction in fluoroscopic dose to anywhere from one-fourth to one-sixteenth of the dose without image intensification; the equipment of fluoroscopes with automatic limiting timers; maximal dark adaptation for fluoroscopy; and the substitution of radiography for fluoroscopy wherever possible. The use, especially in the male because the anatomy of the part lends itself to such a procedure, of lead shields for the local protection of the gonads is effective and simple, and this may be especially considered in X-ray examinations of the hips, pelvis, spine, and urinary tract and abdomen. Other possibilities for shielding will, I am sure, suggest themselves to all who use X-rays in their practice. To those who are not radiologists I should say that you would be well-advised to engage a professional as a consultant to come in and review your equipment and technical practices.

I now come to the last phase of this discussion. I have considered the risks and indicated how these risks may be minimized by the best technical practices. We now have to consider our use of the method, that is, the medical or the human individual indications for medical radiation exposure. Certain it is, at the present stage of the development of medical science, that medical radiation exposure cannot be eliminated, since, I think it must be accepted by all, great benefits accrue from such exposure. But let us look critically at a few specific areas of use. Consider first the obstetrical examination. In such an examination the gonads of not 1 but 2 individuals are being exposed. And yet, how many make a practice of routinely X-raying the pelvis of every primipara? Certainly, there must be indications for X-ray pelvimetry, but I am fairly confident that these indications would be found, unless one took simply a fixed dogmatic attitude, to be few and far between. Another area for consideration is the patient with medical or hospital service insurance with indemnification for X-rays. All of us know that such insurance has encouraged a somewhat indiscriminate use of the X-ray examination based upon considerations of availability rather than on considerations of actual medical need.

A somewhat similar case in point is that of the individual, commonly the corporation executive, who is submitted to extensive, periodic X-ray examinations of the alimentary tract and other parts as a so-called check-up. As regards such screening or check-up procedures it is known, for example, that the alimentary tract X-ray screening program conducted in the State of North Carolina was given up simply because the yield of positive cases was so poor as not to justify the expenditure of time and money. The same kind of critical reëvaluation must be applied to all routine, so-called screening, procedures. In respect to periodic chest X-ray examinations, the truck on the street with its door open to all comers should be abandoned. Emphasis should be placed on the screening of population groups that are known to be at the highest risk of contracting tuberculosis, and such groups are contacts of open cases, patients admitted to hospitals, patients and employees in mental hospitals, student nurses and similar groups. Selectivity should extend beyond the mere choice of population groups, and selection should also be determined by the quality and quantity of follow-up services available and the community potentiality for making a maximum utilization of survey findings.

One could, in extending such a discussion, consider almost any specific X-ray examination, but other major offenders worthy of thoughtful consideration are the frequently repeated X-ray examinations of the pelvis and hips of the infant with congenital dislocation of the hips, the frequently repeated examinations of those children with juvenile osteochondroses of the hips, the urinary tract examinations of the female in which the ovaries cannot be protected, and the ill-considered examinations of the colon. As an indication, however, of the degree to which actual gonadal protection can be practiced I will cite the case of a 7½-year-old female with a large pelvic neuroblastoma which was to be treated by external irradiation.[17] A preliminary laparotomy was performed, and the ovaries were mobilized and enveloped by rubber-covered lead shields. A 2,150 r midfield dose of X-rays was given through 14 by 12 cm. anterior and posterior fields. At the completion of this treatment a second laparotomy was performed and the shields were removed. The patient began to menstruate 3 years later at the age of 11 with a regular 28-day cycle, and normal physical and secondary sex characteristics developed. I am not proposing, however, that protection should be carried to such extremes. On the other hand, if this child survives, the procedure employed was of inestimable benefit to her. I am suggesting only that we apply a single rule in determining indications for X-ray examination, and that is, "Is this examination essential to the well-being of the patient?"

The problem of radiation therapy procedures is a little easier of solution, because, generally speaking, such procedures are used for the treatment of cancer where life expectancy and procreative capacity are limited. On the other hand, it has been common practice to treat with ionizing radiations certain benign conditions which are not associated with a limited life expectancy or limited procreative capacity. Such conditions are the non-neoplastic dermatologic disorders, bursitis, rheumatoid spondylitis, hemangiomata, and the so-called enlarged thymus in infancy. It is strongly recommended that practice be reviewed in respect to these conditions and it is very likely that radiation therapy could be abandoned as nonessential in most.

Finally, it has been suggested that a personal radiation diary should be established for every individual. I do not wish to argue the pros and cons of such a proposal at this time, but suffice it to say that neither the United States Public Health Service nor the National Research Council recommends such at the present time.

CONCLUSION

There is a causal relationship between exposure to ionizing radiations and the induction of genetic and somatic injuries.

These injurious effects may be non-threshold effects and for this reason a medical radiation hazard exists.

At the present level of use of medical radiations in this country the gonadal exposure of the population to ionizing radiations from this source is about equal to or a little greater than the exposure from natural background radiations.

Because of the foregoing considerations recommendations are made that practices in respect to the technic and application of and the indications for medical radiations be reëvaluated.

ADDENDUM: Technical instructions for the operation of fluoroscopes generally recommend an operating voltage of about 85 KVP (peak kilovoltage) and an operating current of 4 ma (milliamperes). Such operating constants are not, however, necessarily determinative of the amount of X-rays produced at the table face which is, of course, the amount of X-rays to which the patient is exposed. This is also dependent upon such things as particular tube characteristics, the distance of the tube from the face of the table, the age of the tube, the filtration between the tube and the table top, and the collimating devices employed. The amount of X-rays produced at the table top for any given settings of voltage or current can, of course, be measured with radiation measuring devices. It is, therefore, more desirable to determine the amount of radiation desired at the table top and then to set (generally) the current to such a level as to provide this amount of radiation and no more. Standards vary somewhat as to what this desirable or optimal amount of radiation at the table top or surface is, but local advice could be secured on this score from radiologists and radiologic physicists. It is recommended that those using fluoroscopes in their practice engage the consultative services of a radiologic physicist to measure this output under actual operating conditions and to limit the maximum current to the amount necessary to produce this optimal output. In addition, such a consultant is competent to check the fluoroscope for unsuspected leakage of radiation around supports or shutters and to check the operation of shutters. Obviously, the shutters should be so set up as to leave a margin of unexposed area on the fluoroscopic screen assembly so that radiation is not escaping beyond its edges. In addition, all fluoroscopes should be equipped with automatic limiting timers set not to exceed 5 minutes without conscious resetting of the timing switch and requiring that the timing switch had to be closed each time the fluoroscope was used.

BIBLIOGRAPHY

1. Statement by United Nations Scientific Committee on Effects of Atomic Radiation: Brit. J. Radiol., 1957, **30**, 282.
2. Glass, B.: Science, 1957, **126**, 241.
3. Biological effects of atomic radiation, from Summary Reports of the National Academy of Sciences and National Research Council, Washington (1956).
4. Laughlin, J. S., and Pullman, I.: Gonadal Dose Received in the Medical Use of X-rays. Washington: National Academy of Sciences, 1956.
5. Frieben: Fortschr. Geb. Röntgenstrahlen, 1902, **6**, 106.
6. Conti, E. A., and Patton, G. D.: Am. J. Obst. & Gynec., 1948, **56**, 884.
7. Duffy, B. J., Jr., and Fitzgerald, P. J.: Cancer, 1950, **3**, 1018.
8. Simpson, C. L., Hempelman, L. H., and Fuller, L. M.: Radiology, 1955, **64**, 840.
9. Clark, D. E.: J.A.M.A., 1955, **159**, 1007.
10. March, H. C.: Radiology, 1944, **43**, 275.
11. Warren, S.: J.A.M.A., 1956, **162**, 464.
12. Court Brown, W. M., and Doll, R.: Leukemia and aplastic anemia in patients irradiated for ankylosing spondylitis, in Special Report Series, Medical Research Council, London (1957), no. 295.
13. Abbatt, J. D., and Lea, A. J., cited in Report of the Medical Research Council, London, for 1955–56, p. 45 (1957).
14. Stewart, A., Webb, J., Giles, D., And Hewitt, D.: Lancet, 1956, **271**, 447.
15. Clark, S. H.: Medical X-ray exposures—national variations, integral doses, etc., read before the National Biophysics Conference in Columbus, Ohio, March 4–6, 1957.
16. Ardran, G. M., and Crooks, H. E.: Brit. J. Radiol., 1957, **30**, 295.
17. Batten, R., and Brown, D. E. M.: Lancet, 1956, **270**, 939.

THE CONTROL OF HYPERCHOLESTEROLEMIA

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METHODS OF CONTROL of atherosclerosis have changed vastly in the past few years and it is well that we have some better means of reducing this most common disease of man in the Western World. Since 90 per cent of coronary thromboses are caused by atherosclerosis[1] and since this has been steadily on the increase in the past several decades, we must work fast in educating our patients in self-preservation, lest this figure go even higher.

Atherosclerosis seems to follow a higher economic level, more so than would be expected by chance. The rate of incidence among poorer classes of people is much less than among people in communities where a higher economic standard of living is enjoyed.[2]

This higher economic standard of living has brought about a higher intake of dietary fat, from a total of 20 to 25 per cent total fat intake a generation or so ago to about 40 per cent total fat intake in the average American diet today. Studies show that where a low total fat intake is still the rule of a population such as with the Chinese (10 per cent average) there is still a low incidence of atherosclerosis.[3] It has also been found that when the same Chinese through elevated economic standard increases his fat intake, his development of atherosclerosis is at about the same rate as that of the American or European.

Associated with this increased incidence of coronary artery disease from atherosclerosis there has been an increase in serum cholesterol, and the opposite has been found in people with low incidence of atherosclerosis.[2] In addition to this there is an associated increase in beta lipoproteins, particularly of the lighter molecule variety, and between these there has been developed an atherosclerotic index indicating the potential of an individual to develop atherosclerosis.[4] This latter involves the use of the ultracentrifuge, which is not available in the average laboratory, and at present all such tests must be mailed to especially equipped laboratories. Besides being costly to the patient, this is time-consuming.

It is being more and more accepted that the level of serum cholesterol will give a good index of results of treatment, and this simpler process is available in almost all laboratories.

One must not be led astray, however, by the different readings on the same blood sample sent to different laboratories, since there is a great difference in methods by which cholesterol is determined. Some methods are so insensitive or so full of possible false readings that they either will rarely give an abnormally high reading or will fluctuate far in excess of normal variation.

In addition to an associated high dietary fat intake it has been found that fats of unsaturated nature are much less prone to increase serum cholesterol than those of saturated nature.[5] Therefore, it is necessary not only to reduce total fat intake but to include some unsaturated fat.

It is now accepted that a fatty acid essential to body needs is arachidonic acid, a long-chain fatty acid containing 4 double bonds. This occurs rarely in nature and must be synthesized within the body. It can be synthesized from linoleic acid with pyridoxine as a catalytic agent, and this process takes place readily when these are available.[6]

The role of arachidonic acid in body metabolism is not entirely understood, but it is definitely associated in some way with esterification of cholesterol.

Fats occurring in nature in our foods, whether animal or vegetable, have varying degrees of saturation and unsaturation, but in general it is considered that animal fats are more saturated and vegetable fats are more unsaturated.

The amount of saturation is determined by the amount in percentage of linoleic acid in a given oil in contrast to all other saturated fatty acids such as palmitic, stearic, and others. Oleic acid, while having 1 double bond and being a mono-ethenoid fatty acid, is not considered essential.

There are certain animal and vegetable fats that are contrary to this general rule. Cocoa butter and coconut oil are largely saturated and have only 2.1 and 2.6 per cent linoleic acid content respectively. Fats and oils, although of marine animal origin, are highly unsaturated. However, the highest content of linoleic acid occurs in safflower, corn and soy bean oils, these containing from 61 to 51 per cent linoleic acid and being excellent for use as dietary supplements.

One type of fat in common and extensive use today is hydrogenated fat or shortening, which, though made from highly unsaturated vegetable oil, has been rendered saturated by a process of hydrogenation, filling up the double bonds with either hydrogen or oxygen. This process is believed to produce not only saturated fat, but possibly trans-fatty acids with bizarre molecular structures, which, though they may be absorbed, are very difficult for the body to metabolize and eliminate, resulting in increased atherosclerotic deposits.[6]

Another process by which our unsaturated fats become saturated is in the process of frying, the fat being changed by high-heat process to toxic fatty acid peroxides.[7] It is believed that the process of hydrogenation or frying produces a chemical manipulation of fat and could very possibly be responsible for much of our increase in atherosclerosis.

To control serum cholesterol at a normal level an ideal program would include a reduction of total dietary fat intake to about 20 or 25 per cent daily, addition of about 1 to 1½ ounces of an unsaturated vegetable oil daily, and the addition of pyridoxine, perhaps 20 to 30 mg. daily, as a supplement.

The diet can be reduced by eliminating all hydrogenated fats including margarine, fried foods, cream sauces, gravies, mayonnaise, whipped cream, and ice cream. Also, sources of hidden fat in bakery cakes, pies, and bakery icings made from shortening and sugar should not be overlooked.

Care should be used in not completely eliminating fat from the diet. Certain nutrient foods, such as eggs, butter, cheese and whole milk, should not be left out completely but limited in amount. One egg daily, a small amount of butter, and a small amount of cheese should not increase the total fat beyond the limit, and would preserve these valuable sources of vital food elements.

Meat should have all fat trimmed from it, and pork, because of its high fat content, should be eliminated. Lamb should be eaten cold in order to better remove fatty portions. The skin of turkey or chicken can be removed to eliminate much of the fat. Any fish desired may be eaten whether fresh or frozen. All of these meats should be broiled,baked or boiled, but not fried.

No attempt is made to regulate the vegetable content of the diet, but the total amount of caloric intake should be maintained the same in order to not allow a change in weight unless desirable.

The amount of cholesterol in food is no longer a consideration, because the body synthesizes cholesterol to aid in the transportation of fat. Our tissues can produce 10 times as much cholesterol as it is possible to consume in the ordinary diet.[8]

One investigator[5] has insisted that much of our trouble with atherosclerosis has come about as a result of so much processing of food and the lack of fresh grains and cereals. Processed breakfast foods, bleached flour, and canning and freezing of food destroy, according to this author, the pyridoxine and vitamin E that occur naturally.

If this is true and is proven, vitamin E should also be added, somewhere between 30 and 100 units daily.

Hypercholesterolemia is also being controlled by the use of large doses of nicotinic acid (not nicotinamide), this treatment requiring between 3 and 6 Gm. of nicotinic acid in 3 divided doses daily.[9] The initial flushing soon disappears, and the results are good. However, the number of patients carried on this treatment is far less than the number of those treated by the other forms of therapy.

In cases of marked thyroid deficiency, when hypercholesterolemia exists, the latter may sometimes be reduced by correction of the deficiency. Also, heparin has been used to lower the blood lipids. This will reduce the lipid level of the blood to normal within a few hours.

The use of sitosterol for lowering serum cholesterol levels has been given a trial. The method of function of sitosterol to reduce the absorbability of dietary lipids seems to have no advantage over the lowering of fat intake. It is much more expensive than the latter form of therapy and is not nearly as effective.

Lipotrophic agents (choline, methionine, inositol, B_{12}, liver fraction) have been used under well-controlled conditions, and with their use a reduction in the number of chylomicrons can be obtained at will. However, they have no appreciable effect on serum cholesterol.[10]

In the use of linoleic acid, a low fat diet, B_6 and vitamin E to control hypercholesterolemia, we do not believe that we have the final answer to the problem of atherosclerosis. It is, however, a workable aid in treatment and the best method we have so far for general use. There may come a time when our concepts of treatment will change considerably, since there is one study that has pointed to a "Trace Metal Displacement of Vital Metallic Salts in the Body."[11] This author goes on to say that the American diet is widely exposed to trace metals in canned foods, in products of petroleum combustion, and in water piped through metal pipes. He feels that one metal can displace another in a biologic system and inactivate it. He also states that nickel catalysts are used in hydrogenation of edible vegetable fats. This is certainly food for thought though very difficult to prove.

One probable factor closely related to atherosclerosis is tension or stress. It is not measurable, and its relationship is not known. It is possible that the effect of stress on the adrenal gland and the relative changes in its secretion plus the effect of stress on the entire glandular system change the hormone balance. This could change the metabolism of fat and thus produce arterial deposits.

In the treatment of hypercholesterolemia, each case must be handled individually, and no fixed rule for therapy can be laid down. A dietary history must first be taken to determine what changes in fat intake are necessary. A plan for treatment can then be drawn up and discussed with the patient. He should be impressed with its importance and with the fact that this is a long-term treatment. If the serum cholesterol does not respond in 3 to 6 weeks, consultations must include a review of the dietary habits with alterations made accordingly.

BIBLIOGRAPHY

1. Morrison, L. M.: J.A.M.A., 1955, **159,** 1425.
2. Keys, A.: J. Chron. Dis., 1956, **4,** 364.
3. Keys, A., and others: Clin. Chem., 1955, **1,** 34.
4. Lyon, T. P., Yankley, A., Gofman, J. W., and Strisower, B.: California Med., 1956, **84,** 325.
5. Bronte-Stewart, B., Antonis, A., Eales, L., and Brock, J. F.: Lancet, 1956, **270,** 521.
6. Sinclair, H. M.: Ibid., 1956, **270,** 381.
7. Keys, A.: Hoard's Dairyman, September 25, 1957.
8. Yater, W. M.: M. Ann. District of Columbia, 1955, **24,** 164.
9. Parsons, W. B., Jr., and others: Proc. Staff Meet. Mayo Clin., 1956, **31,** 377.
10. Rawls, W. B., and Tichner, J. B.: J. Am. Geriatrics Soc., 1956, **4,** 89.
11. Schroeder, H. A.: J. Chron. Dis., 1955, **2,** 28.

THE TREATMENT OF NAUSEA AND VOMITING OF PREGNANCY WITH PROCHLORPERAZINE

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THE CAUSAL relationships between the nausea and vomiting of pregnancy and the psychic and physical processes accompanying pregnancy still elude precise understanding. This gap in our knowledge, however, has not precluded the discovery and utilization of specific antiemetic agents in pregnancy. This is fortunate, since a majority of pregnant women probably suffer from nausea and vomiting at some time during their pregnancy. The condition is not always harmless nor is it, in every case, of brief duration. Persistent vomiting, when it is not promptly arrested, frequently leads to dehydration, electrolyte imbalance and malnutrition, not to speak of the emotional toll the condition may exact.

Within the past few years several phenothiazine derivatives have been found useful in controlling nausea and vomiting. Perhaps the best known of these is chlorpromazine, reportedly effective in nausea and vomiting associated with a wide variety of organic and psychic disorders.[1, 2, 3] Recently, a new phenothiazine derivative, prochlorperazine,* has been reported to show considerable antiemetic potency.[4, 5, 6] In addition to this antiemetic activity, prochlorperazine, like chlorpromazine, also acts as a tranquilizer. Since the reports indicate that prochlorperazine was effective in dosages lower than those used with chlorpromazine and that the drug produced no physiologically significant side-effects, prochlorperazine was considered promising and safe enough to warrant a trial in the nausea and vomiting of pregnancy.

MATERIAL AND METHOD

Eighty-eight women, ranging in age from 19 to 39 years, comprised the study group. Two-thirds were multiparas. In each patient pregnancy was accompanied by nausea and vomiting. Three patients were borderline cases of hyperemesis gravidarum. Careful examination ruled out intestinal obstruction or other organic conditions which might lead to nausea and vomiting.

Each patient was given a week's supply of prochlorperazine and told to take 1 tablet (5 mg.) 3 times daily. Later the dosage was adjusted individually. Eighty-four patients had not had antiemetic therapy prior to being given prochlorperazine. Four patients had previously failed to obtain relief of nausea and vomiting on vitamins (chiefly pyridoxine hydrochloride) given intravenously.

The patients were told that they were being given an antiemetic, but no mention was made of prochlorperazine's tranquilizing activity.

RESULTS

The effectiveness of prochlorperazine is shown in table 1. The 4 patients who had not responded to vitamins given intravenously obtained relief with prochlorperazine, 2 patients being relieved within 48 hours and 2 within 96 hours. Nineteen patients did not benefit satisfactorily from prochlorperazine on the dosage of 5 mg. 3 times daily. When the dosage was raised to 10 mg. 3 times daily for these patients 1 patient was completely relieved of nausea and vomiting within 48 hours, 2 patients were completely relieved within 96 hours, and 2 patients obtained partial relief. On 5 mg. 4 times daily 2 patients were completely relieved of nausea and vomiting within 48 hours, and 1 patient was completely relieved within 96 hours.

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* Produced under the trade name Compazine by Smith, Kline & French Laboratories, Philadelphia, Pa.

Of the 11 remaining patients who did not respond satisfactorily to prochlorperazine even at the higher dosage, 6 patients obtained complete to partial relief on vitamins given intravenously. The remaining 5 patients responded no better to this therapy than they had to prochlorperazine.

TABLE 1
Results with Prochlorperazine in the Treatment of Nausea and Vomiting in Pregnancy (88 Patients)

Relief Obtained	No. Patients	Per cent
Complete:		
Within 48 hrs.	36	78
Within 96 hrs.	33	
Partial	8	10
None	11	12
Side-effects	2	2

All 3 patients with borderline hyperemesis gravidarum were benefited by prochlorperazine, 1 patient obtaining complete relief within 48 hours, another patient being completely relieved within 96 hours, and the third patient obtaining partial relief.

One patient complained that prochlorperazine caused some mild depression; the medication was discontinued at the end of the first week, nausea and vomiting having responded to the drug by that time, and the patient reported no further depression. Another patient complained of indigestion and was given an anticholinergic concomitantly with prochlorperazine. Nausea and vomiting remained under control, and the indigestion ceased. There were no reported or observable side-effects in the other patients. To maintain relief of nausea and vomiting with prochlorperazine 22 patients required the drug for a full week before it could be discontinued, 37 patients required it for 2 weeks, 15 patients required it for 6 weeks, and 3 patients required it for more than 6 weeks.

Prochlorperazine seemed to have no untoward effect on pregnancy, delivery or health of the newborn.

COMMENTS

Prochlorperazine, apparently, effectively blocks a stage in the vomiting mechanism. In the treatment of nausea and vomiting in pregnancy one finds, not infrequently, that, although vomiting is brought under control, nausea persists. Since nausea, which usually precedes vomiting, was as effectively inhibited as vomiting in this study, the stage at which prochlorperazine blocks the emetic process may possibly be an "early" one. In addition to inhibiting the vomiting mechanism, prochlorperazine, by its tranquilizing activity, probably also blocks a psychic "trigger" in nausea and vomiting.

Although the oral form of any antiemetic cannot be expected to act as promptly as an injectable, the oral form of prochlorperazine used in this study displayed a gratifying speed of action. This is, of course, important to the ambulatory patient, who cannot usually rely on someone being at hand to administer an injectable preparation.

It must also be noted that prochlorperazine's high rate of remission of nausea and vomiting was unaccompanied by any significant side-effects. It has been estimated that approximately 20 to 75 per cent of patients on other antiemetic drugs will experience mild to severe side-effects.[7] Depression, lethargy and drowsiness have been noted when antihistamines and barbiturates have been used as antiemetics.[8] Yet, in this study there certainly seemed no diminution of alertness or ability to perform daily chores, although the patients were noticeably calmer and less apprehensive than they had been before treatment.

Of course, one must always take into account the self-limiting nature of nausea and vomiting in pregnancy (largely confined to the first 16 weeks). Some of the instances of relief may more properly be credited to spontaneous remission than to prochlorperazine. But, taking into account the uniform promptness of prochlorperazine's antiemetic activity, it is difficult to argue for a coincidence of medication and spontaneous remission in 88 per cent of the patients.

SUMMARY

Eighty-eight pregnant patients suffering from moderate to severe nausea and vomiting were given prochlorperazine, a new antiemetic and tranquilizer. Complete relief of nausea and vomiting was obtained within 96 hours by 78 per cent of patients. Ten per cent of patients obtained partial relief. Twelve per cent obtained no relief. Only 2 patients reported mild, transitory side-effects, depression and indigestion. The study demonstrates that prochlorperazine is a safe, quick-acting antiemetic suitable for use in pregnant patients.

BIBLIOGRAPHY

1. BENARON, H. B. W., AND OTHERS: Use of chlorpromazine in obstetric patient: preliminary report; in treatment of nausea and vomiting of pregnancy. Am. J. Obst. & Gynec., 1955, **69**, 776.
2. FRIEND, D. G., AND WELLS, J. C., JR.: Clinical use of chlorpromazine. Am. Pract. & Digest Treat., 1955, **6**, 698.
3. MOYER, J. H., AND OTHERS: Scientific exhibits; observations on effective antiemetic-chlorpromazine. A.M.A. Arch. Int. Med., 1954, **94**, 497.
4. FRIEND, D. G., AND MCLEMORE, G. A., JR.: Antiemetic properties of new chlorphenothiazine derivative, prochlorperazine. Ibid., 1957, **99**, 732.
5. BOYD, E. M.: Antiemetic action of prochlorperazine. Canad. M.A.J., 1957, **76**, 286.
6. SMITHY, G., AND HOMBURGER, F.: Prochlorperazine for treatment of nausea and vomiting in patients with advanced cancer and other chronic diseases. New England J. Med., 1956, **256**, 27.
7. MOYER, J. H.: Effective antiemetic agents. M. Clin. North America, 1957, **41**, 405.
8. ANSPAUGH, R. D.: Effects of dexedrine sulfate on nausea and vomiting of pregnancy. Am. J. Obst. & Gynec., 1950, **60**, 888.

CONGENITAL COMPLETE HEART BLOCK WITH COEXISTING CONGENITAL HEART DISEASE

Report of a Case and Review of the Literature

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COMPLETE HEART BLOCK in a newborn infant is an unusual and interesting condition. Review of the literature reveals approximately 100 cases reported since Van Stark in 1903 first reported complete auriculoventricular block of congenital origin. This case derives its interest in the fact that it is only the thirteenth reported case in which the block was definitely manifested antenatally.

REPORT OF CASE

This white male infant (S. P.) was delivered on December 17, 1955 at Columbia Hospital, Washington, D. C. of a gravida 2, para 2 mother. The birth weight was 9 lbs. 9 oz. The mother's history revealed (1) that she had had rheumatic fever at 6 years of age, manifested by joint aches and pains, redness and swelling of joints and a cardiac murmur, and (2) that the first-born child of this mother has proven situs inversus viscerum—this child is alive and well at the present date. Pregnancy was at term. Delivery was by low cervical cesarian section because of (1) breech presentation, (2) no progress of labor in 24 hours, (3) the presence of ruptured membranes in a multipara, and (4) a very slow fetal heart which was impossible to hear at all times. Analgesia consisted of demerol and seconal. Anesthesia consisted of pentothal.

Resuscitation was performed in a Kreiselman apparatus; respiration was established in 3 minutes. These respiratory movements were short, shallow and accompanied by both retractions and expiratory grunt. The infant was placed in an Isolette where he received continuous oxygen plus mist consisting of a $\frac{1}{3}$ Alevaire–$\frac{2}{3}$ water mixture. The heart rate was very slow, 76 to 80 per minute. Cyanosis was present. General muscle tone was poor. The hemoglobin was 17.9 Gm.; the red blood cells numbered 7,750,000 and the white blood cells 36,300, with 59 per cent segmented forms, 1 per cent band forms, 20 per cent juvenile forms, 15 per cent lymphocytes, 4 per cent monocytes, 1 per cent eosinophils, 1 per cent basophils, and 6 per cent erythroblasts.

The following day cyanosis and dyspnea persisted with a respiratory rate of 80 to 100 per minute. The heart rate continued to be slow, 66 to 72 per minute. The liver was somewhat enlarged and firm. Femoral pulsations were not palpable. No cardiac thrill, shock or murmur were noted. On auscultation it was believed that very limited air exchange was taking place. An X-ray film of the chest revealed marked enlargement of the cardiac silhouette in all diameters and clear lung fields (figure 1). An electrocardiogram revealed complete heart block, with auricular rate of 140 per minute, ventricular rate of 75 per minute, and definite evidence of left ventricular hypertrophy (figure 2).

Cardiac failure was thought to be present. The infant was digitalized over the next 24 hours with tincture of digitalis calculated on the basis of 35 mg. per Kg. of body weight. A maintenance dose of 0.15 c.c. of the tincture was then used. Improvement was marked by the next day, manifested by lessened dyspnea and cyanosis and a smaller, softer liver. However, at this time no air exchange could be heard in the left lung. Another roentgenogram of the chest showed atelectasis on the left with shift of the heart to the left. The cardiac rate varied from 66 to 70 per minute and respiratory rate 40 to 50 per minute. Procaine penicillin intramuscularly was now started. During feedings the respiratory rate would become as high as 110 per minute, and the infant would tire readily. On December 24, 1955 slight nasal discharge and coarse rhonchi were noted. Nine days after birth an X-ray film of the chest revealed an extensive bronchopneumonic process involving the right lung. Chloromycetin palmitate was given until clearing of this process. Eleven days after birth a systolic murmur grade 2 was heard all over the precordium; this murmur has persisted until the present. The infant was discharged from the hospital 28 days after birth. At this point the atelectasis had cleared, feedings were fairly well tolerated, and only minimal signs of congestion were noted on auscultation of the lungs.

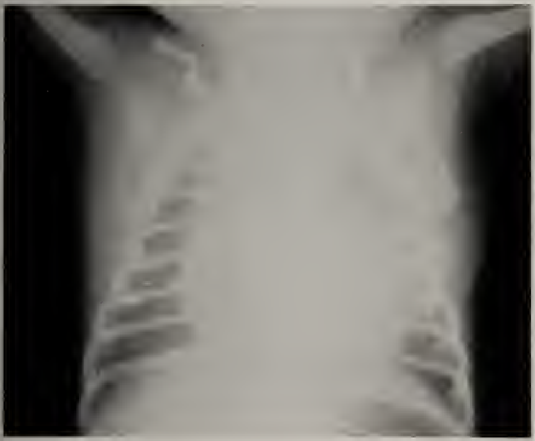

FIG. 1. Lung fields clear, heart markedly widened in all diameters.

Since discharge from the hospital feedings have been difficult and not altogether satisfactory for long periods of time. Only a few episodes of upper respiratory infection have been encountered, these responding rather slowly to antibiotic therapy. This infant is now 21 months of age and weighs 22 lbs. 7 oz. The cardiac rate varies between 60 and 70 per minute. Femoral pulsations are present bilaterally. One episode of cardiac failure has been encountered; this occurred during an attack of acute viral gastroenteritis and responded quickly to increased dosage o^f^ digitalis after the period of vomiting had passed. Routine immunizations have been given without incident.

DISCUSSION

In 1933 Yater[1] reviewed the literature and established the criteria for the diagnosis of congenital heart block. They are: (1) electrocardiographic evidence of heart block at an early age, (2) the absence of history of infection such as diphtheria, rheumatic fever, pneumonia, or congenital syphilis which could cause heart block after birth, and (3) the presence of bradycardia at an early age. If syncopal attacks occur early in life, they present fairly reliable evidence that the heart block existed prior to the attacks.

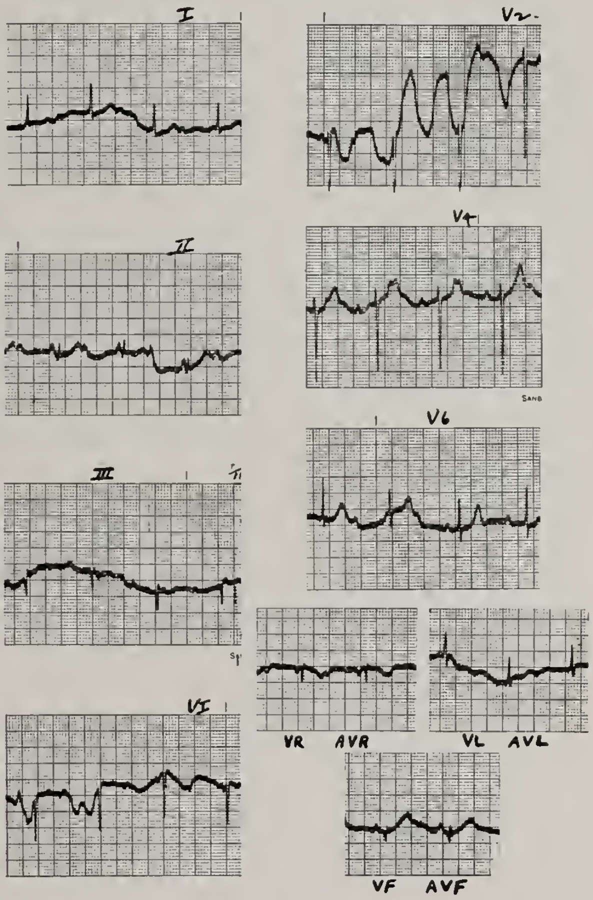

FIG. 2. Auricular rate 145 to 150, ventricular rate 75, complete heart block.

The simultaneous presence of congenital heart disease is helpful in establishing the etiology of the heart block. However, neither syncopal attacks nor the presence of congenital heart disease is essential to the diagnosis of congenital heart block.

Auriculoventricular heart block may be divided into 3 major categories. They are: (1) first degree heart block manifested by a prolonged PR interval, indicating delayed conduction, (2) second degree block manifested by a definite ratio of blocking, in which impulses only reach the ventricles every 2 (2:1) or 3 (3:1) beats, or the Wenckebach phenomenon, wherein with increasing difficulty of passage an impulse is eventually totally blocked, and (3) third degree or complete block in which the auricles and ventricles beat independently of each other, because the wave of excitation arising in the auricles never reaches the ventricles. In this latter instance the wave of excitation arises in the sino-auricular node for the auricles and in the auriculoventricular node or the bundle of His or its branches for the ventricles.

Congenital heart block as opposed to acquired is caused presumably by either a developmental defect of the bundle of His or by bundle involvement in the course of prenatal endomyocarditis, syphilis or congenital heart disease with septal defects. The fact that the bundle of His may develop in a faulty manner has been proved by careful histologic examinations of the entire heart including serial sections through the conduction system. Plant[2] reported 1 case in which there were absolutely no Purkinje fibers demonstrable in frozen or paraffin sections from an entire heart; this heart was fixed in formalin saturated with dextrose to preserve the glycogen content of the Purkinje fibers. Yater[3] in 1929 demonstrated by serial sections through the conduction system complete separation of the A-V node from the bundle of His by a body of centrally located fibrous tissue. Again Yater et al[1] in 1933, in the second reported case ever to be studied by serial sections, demonstrated a very large interventricular septal defect associated with almost complete absence of the bundle of His. Perotti's case[4] again demonstrated almost complete absence of the bundle of His associated with complete absence of the interventricular septum in its membranous portion. Wilson's case[5] presented by histologic study a normal, well-developed auriculoventricular node but blocking of the branches of the bundle by dense fibrous tissue. At the present date there has not yet appeared any case in which prenatal endomyocarditis or syphilis could be determined to be the cause of destruction or alteration of the entire conduction system or any of its divisions. One case of fibroelastosis of the endocardium ("fetal endocarditis") manifesting itself clinically by total heart block has been reported.[6] However, in the microscopic studies of the heart substance there was no tissue found "sufficiently distinctive to be identified as conductive in nature." This case should be classified as a developmental defect.

In the great majority of cases heart block of a congenital nature occurs in combination with some other congenital cardiac abnormality. Yater[1] in the first exacting review of the literature listed 44 cases, 28 of which had in combination a patent interventricular septum, one almost complete absence of the septum, and 5 others with 1 or more associated cardiac abnormalities. Nielsen[7] added 23 new cases, 17 of which revealed a patent interventricular septum, 2 of which were questionable but were thought to be patent interventricular septum, and 4 of which had other associated cardiac abnormalities including dextrocardia, pulmonary stenosis, aortic insufficiency, patent ductus arteriosus, and stenosis of the isthmus. Of the 17 with patent interventricular septum, each manifested some cardiac enlargement. Four cases in this series gave a history of syncopal attacks. Since 1935, 14 of the reported cases[2, 6, 8–17] were summarized by one of us. Of these 14, 10 were associated with interventricular septal defect, 2 presented no associated defects, 1 occurred in connection with endocardial fibroelastosis, and 4 had multiple associated cardiac abnormalities. Syncopal attacks were present in only 1 of this group. Interventricular septal defect is the most common associated cardiac abnormality, occurring in over 70 per cent of the reported cases. However, even though interventricular septal defect occurs frequently in association with disturbances in the conduction system, the reverse is not true. Most cases of patency of the interventricular septum, even those with almost complete absence of the septum, are not associated with defects of the conduction system.

Congenital complete heart block occurring alone without associated cardiac defects seems to be compatible with a rather long and fairly active life.[18, 19, 20] In addition, these cases usually require no therapy. Cardiac enlargement to some degree frequently accompanies complete auriculoventricular block. It is believed that, in order to compensate for the bradycardia with diminished total volume resulting, the beat volume or stroke volume is magnified by chamber enlargement. Even with cardiac hypertrophy of a great degree, the most frequent and usually single symptom encountered is a very mild exertional dyspnea. Insignificant dyspnea may occasionally occur at rest. Other associated symptoms which may occur are pallor, dizziness, weakness, headache and fatigue. However, sudden death may occur at any time.[7, 8] The exact reason for the demise may or may not be discernible at the time. Approximately 20 per cent of cases in which congenital heart block is complete will evidence syncopal attacks of an Adams-Stokes nature. Death may readily occur in the course of one of these attacks.

Emphasis should rightly be placed on the malformation which accompanies heart block rather than on the block itself. Prognosis and therapy depend to a great extent on the associated malformation or malformations. The presence of heart block, however, does add gravity to the situation.

The great majority of cases of congenital auriculoventricular block is third degree or complete and occurs with equal frequency in either sex. In these instances the wave of excitation for the ventricles arises from the ventricular pacemaker located above the division of the bundle of His. When congenital heart block occurs it is usually persistent in nature. However, on rare occasions, the block may vary in degree.[21] Bernreiter[17] and Sheridan[22] each reported 1 case in which there was alternating 2:1 and 3:1 auriculoventricular block. In 1 reported instance the block completely disappeared.[21, 23] In 1 peculiar case heart block, nonexistent at birth, developed within the neonatal period.[22] In this case it was theorized that, with increasing cardiac enlargement the underdeveloped conduction system was unable to maintain its continuity. Others have postulated that pressure of the blood current on the anatomically intact bundle of His through the septal defect or deficient blood supply to the auriculoventricular node itself may be the factor involved. The average rate of independent ventricular action is about 80 in infancy, slowing to about 60 in the 2- to 8-year group. The bradycardia varies inversely with the age of the child; the younger the child, the higher is the pulse rate. The lowest reported pulse rate in the absence of syncopal attacks was 32 per minute.[7]

The independent auricular and ventricular rates, as well as blood pressure, have been studied in their response to drugs, fever, posture, exercise, forced inspiration and expiration, vagal stimulation by carotid sinus massage, and venipuncture as a method of sympathetic stimulation.[7, 9, 24] Exercise may or may not alter the ventricular rate. When alteration as a result of exercise occurs, it is usually an increase in rate of about 10 to 20 beats per minute. This acceleration is very short-lived and therefore easily missed. Moss[21] reported no effect on either rate. This was confirmed by Dickson[10] in 1 case and Campbell[18] in 2. On the other hand, Jaworski[9] demonstrated a 58 per cent elevation of ventricular rate, unchanged blood pressure, and a 122 per cent increase in auricular rate within 15 minutes following intravenous injection of a large dose of atropine (2 mg. in 1 c.c. of saline solution). This 58 per cent increase in ventricular rate persisted for 5 hours. Campbell in a third case found a rise in auricular rate from 77 to 120, and in ventricular rate from 44 to 56, 40 minutes after injection of 1/150 grain of atropine sulfate. Auricular and ventricular rates both are elevated by epinephrine.[9] Ephedrine (100 mg. in a single oral dose) was found to cause an 18 per cent increase in auricular rate within 15 minutes but no change in the blood pressure or idioventricular rate. Of the remaining factors, none caused any significant changes with the exception of forced expiration. In this instance, the case under discussion was that of congenital complete heart block associated with acute rheumatic fever; the change was a 30 per cent increase in the idioventricular rate and the appearance of extrasystoles. The effect of digitalis in the case reported by us was that of correcting the associated heart failure without effecting any change in the heart block.

Congenital heart block can manifest itself in utero. Thirteen such cases, including the 1 reported here, are now recorded. Phonographic and electrocardiographic studies have been made of the fetal heart. Some of the irregularities described by these methods are sino-auricular block, paroxysmal tachycardia, extrasystoles, and flutter. If congenital block manifested in utero is interpreted incorrectly as a sign of fetal distress, the pregnancy may be terminated prematurely by operative intervention. One must be guided by the continued slow rate of the fetal heart irrespective of changes in the maternal uterus.

Congenital complete auriculoventricular block can apparently occur in a very rare familial form. Aylward[25] reported identical cases in 2 sisters. Wendkos[26] reported cases in 2 siblings, 1 of which was diagnosed antenatally. The Wolff-Parkinson-White syndrome is present in the father of the latter 2 siblings.

Two unusual cases have been reported in which congenital heart block coëxisted with fibrocystic disease[27] and pains in the tibiae,[16] the latter believed to be due to early hypertrophic pulmonary osteoarthropathy described by Pierre Marie.

SUMMARY

A case of congenital complete auriculoventricular heart block manifesting itself antenatally has been presented.

Review of the literature has shown that congenital heart block occurs in the great majority of instances accompanied by some other cardiac abnormality.

If there is no associated congenital abnormality or defect, there is no need for therapy unless Adams-Stokes attacks occur; if there is an associated defect, treatment is that of the defect.

BIBLIOGRAPHY

1. Yater, W. M., Lyon, J. A., and McNabb, P. E.: J.A.M.A., 1933, **100**, 1831.
2. Plant, R. K., and Steven, R. A.: Am. Heart J., 1945, **30**, 615.
3. Yater, W. M.: A.M.A. Am. J. Dis. Child., 1929, **38**, 112.
4. Perotti, D.: Boll. d. Soc. med-chir. di Pavia, 1928, **3**, 1.
5. Wilson, J. G., and Grant, R. T.: Heart, Lond., 1925–26, **12**, 295.
6. Stadler, H. E., Reid, C. A., and Friedman, H. P.: J. Pediat., 1950, **36**, 370.
7. Nielsen, A. L.: Acta Paediat., 1935, **17**, 554.
8. Sankey, A. O.: Brit. M. J., 1948, **2**, 676.
9. Jaworski, A. A., and Farley, J. E., Jr.: Rhode Island M. J., 1951, **34**, 649.
10. Dickson, R. W., and Jones, J. P.: A.M.A. Am. J. Dis. Child., 1948, **75**, 81.
11. Riley, I. D.: Arch. Dis. Childhood, 1949, **24**, 309.
12. Massey, F. C.: J. Pediat., 1948, **33**, 492.
13. Harris, J. W. S.: J. Obst. & Gynaec. Brit. Emp., 1952, **59**, 404.
14. Faessler, B.: Ann. paediat., 1939, **153**, 327.
15. Cardelle, G., Pereiras, R., and de la Torre, H.: Vida nueva, 1941, **48**, 209.
16. Wissler, H.: Ann. paediat., 1940, **155**, 53.
17. Bernreiter, M., and O'Connell, F.: J.A.M.A., 1952, **150**, 792.
18. Campbell, M. (London): Brit. Heart J., 1943, **5**, 15.
19. Gjorup, cited by Nielsen.[7]
20. Langendorf, R., and Pick, A.: Pediat. Clin. North America, 1954, **1**, 215.
21. Moss, A. J., and Litman, N. N.: J. Pediat., 1956, **48**, 226
22. Sheridan, V. E., and Parker, R. L.: A.M.A. Am. J. Dis. Child., 1947, **73**, 199.
23. Heubner, D.: Ztschr. Kreislaufforsch, 1938, **30**, 600.
24. Campbell, M., and Suzman, S. S.: Am. Heart J., 1934, **9**, 304.
25. Aylward, R. D.: Brit. M. J., 1928, **1**, 943.
26. Wendkos, M. H., and Study, R. S.: Am. Heart J., 1947, **34**, 138.
27. Potter, C. T., and Trounce, D. Q.: Brit. Heart J., 1952, **14**, 291.

A USEFUL DEVICE FOR TREATING ACUTE ALLERGIC DRUG REACTIONS—THE MEDIHALER-EPI”

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THE BEST DRUG to use in allergic drug reactions still is epinephrine (adrenalin), given early and adequately. In spite of the advent of and the advertisements of injectable antihistamines, corticosteroids, penicillinase, etc., the first choice for severe allergic reactions should be epinephrine. The most important factors in the treatment of severe allergic reactions (aside from prevention, which is a topic in itself) are using the proper drug, epinephrine, and getting it into the system early enough—seconds literally count in this emergency.

Allergic reactions to drugs are a problem that every physician, regardless of his specialty, may be faced with, and usually at a time when he is busiest and hurried. At the recent Symposium on Antibiotics sponsored by the U.S. Food and Drug Administration it was estimated that there would be 200 to 300 deaths resulting from penicillin reactions alone this year.[1]

For most acute allergic drug reactions the following measures are recommended: (1) Keep the patient under observation 10 to 20 minutes after the injection, and (2) have adrenalin, 1 to 1,000, and a syringe readily available, and use the adrenalin at the first sign of a reaction and repeat as needed. The following case report reveals, I believe, a situation where the routine use of adrenalin in a severe allergic reaction apparently was not successful and where the use of an aerosol of epinephrine given via the Medihaler was dramatically successful.

Mr. K. W. was a 40-year-old lawyer who had been getting regular allergic treatment for about 2 years for seasonal hay fever. He came in once a month for a maintenance dose of his pollen allergens. The ensuing episode occurred during the winter season when there was no change in the strength of his extract, and the dose was administered by myself to make sure the injection was not made intravenously. However, apparently I had injected the allergen intravenously in spite of this precaution, since in a few seconds I noted an acute redness of his eyes. Even though he had no symptoms at this time I reached for my bottle of adrenalin, prepared a dose, and told the patient to move from the chair to the examination couch and lie down. In this brief period he sneezed several times, coughed once, scratched his palms, said he felt sick, and then collapsed in my arms. I placed him on the floor and still holding the syringe with adrenalin, I gave him ½ c.c. of 1 to 1,000 adrenalin into the injection site, and ½ c.c. into the other arm. He was deeply cyanotic at this time and no pulse or respiration was noted. A tourniquet was placed above the site of the injected allergen and the other arm massaged to get more rapid absorption of the adrenalin. Another ½ c.c. of adrenalin was given into another site without much effect. The veins were collapsed and it was apparent the adrenalin was not getting into the circulation. With the patient still on the floor, I began artificial respiration, and then I noticed a Medihaler with epinephrine on my desk which I had recently demonstrated to an asthmatic. While I continued the artificial respiration, I had my nurse put the nebulizer into the mouth of the patient and expel the aerosol during the passive inspiration phase of the artificial respiration. After 2 such inhalations the patient gave a gasp, began breathing, and the color returned to normal. The aerosol was repeated several times over the next few minutes, and the patient roused in about 5 or 6 minutes, although he was detained in the office for about 2 hours.

The basic problem here, I feel, was that the acute allergic reaction produced a vasomotor collapse and the adrenalin was not getting to the vital tissues. The aerosol, by putting the adrenalin into the vascular lung tissues, approximated an intravenous injection of adrenalin.

Since the medications for this inhaler are prepared with several different formulas, including an aerosol of isoproterenol, a coronary dilator, and a nose spray, it is important to remember for the treatment of allergic reactions to use the epinephrine formula. The device consists of a plastic oral adaptor with an inner nozzle to produce a small particle-size aerosol and a 10 c.c. metal container with the epinephrine suspension under pressure of a nontoxic gas propellent and fitted with a special, single-dose type valve. The strength of the epinephrine bitartrate is 7 mg. per c.c. For purposes of reference, this should be compared with the usual adrenalin 1 to 1,000 for hypodermic use which contains 1 mg. of epinephrine per c.c. or with the usual epinephrine 1 to 100 spray which contains 10 mg. of epinephrine per c.c. Thus it may be seen that the epinephrine in the Medihaler is somewhat weaker than the usual adrenalin for nebulization, but the small particle-size of the aerosol and the deeper inhalation caused by the gas propellent apparently render this formula more effective. The special release valve gives a fixed amount of aerosol each time, regardless of the strength or length of pressure on the valve. It is calculated that each aerosol releases a dose of 0.15 mg. of epinephrine. This can be compared to a dose of 0.15 c.c. of adrenalin 1 to 1,000 given subcutaneously if the total aerosol is retained, and apparently in most cases a very large percentage is retained.

Since this time the Medihaler with epinephrine has been on my treatment table at all times, and it has been used at the first sign of any adverse allergic reaction to an injectable drug. It will stop these reactions readily, and it is more acceptable to the average patient than an injection of adrenalin. It has been used by several of my patients during intravenous pyelograms with complete relief of many of the adverse symptoms which in previous injections had caused considerable distress. It has also been found very effective in cases of acute and chronic angioneurotic edema in which there is swelling of the epiglottis or larynx. One of my patients who has had severe anaphylactoid reactions to the sting of a bee and who had refused desensitization has been carrying one of these Medihalers with him at all times and has been stung twice thus far without systemic reactions upon using the aerosol immediately after any insect sting.

I feel that this device is a simple, effective and inexpensive way to get epinephrine into the system and should be a part of the doctor's anaphylactic kit.[2]

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BIBLIOGRAPHY

1. Becker, R. M.: New concept in treatment of penicillin reactions—use of penicillinase, read before the Fifth Antibiotic Symposium in Washington, D. C., October 2–4, 1957.
2. Prickman, L. E., and Lofgren, K. A.: An emergency set to combat anaphylaxis. J.A.M.A., 1956, **161**, 1159.

President's Page

DISABILITY AND SECOND INJURY FUND LEGISLATION

Last month on this page I pointed out that Workmen's Compensation is an obstacle to hiring the handicapped because many courts hold that if a previously disabled worker is further disabled on the job, his employer is responsible for the entire resulting disability. Now I want to discuss Second Injury Fund legislation which shows promise of remedying some of the faults inherent in these laws.

Second Injury Funds are designed to protect the rights of both employers and employees by providing that if a worker with a permanent physical impairment becomes further disabled because of his employment, the employer shall be liable for only a part of the resulting disability. However, the employee is compensated for the full disability, the difference being paid from the Second Injury Fund. These funds are financed by various means: legislative appropriation of public funds, annual assessment on insurers, percentage of insurance company premiums, or employer payments of specified amounts when a worker is killed on a job and leaves no dependents.

The Second Injury Fund was adopted by New York in 1916 and provided if a worker with one hand, arm, foot or leg lost a second such member or organ in an accident at work, the employer's liability covered the second loss only, the remaining compensation for the combined injury to be paid from a special fund. This idea was slow to gain favor and was not generally accepted until the 1940's when attention was focused on employment of handicapped veterans of World War II.

Present legislation for Second Injury Funds is inadequate because some states limit coverage to loss by amputation or loss of sight and these conditions occur in only 5 per cent of handicapped individuals. Other states limit benefits for combined injury to permanent total disability, and this occurs in only one-tenth of one per cent of industrial accidents, according to statistics published by the U. S. Department of Labor in 1956. The District of Columbia is included in this latter group which requires permanent total disability. It is interesting to note that in July of 1956, although there was a cash balance of $119,280 in the District of Columbia fund, there were no claimants and no benefits paid from the fund and no new claims had been filed against the fund during the preceding fiscal year. Maryland is one of the states having a very limited coverage. Virginia has no Second Injury Fund.

In my own practice I have patients who have sustained disc injuries who find it impossible to secure jobs in their old trades of carpentry, bricklaying, or other types of construction work. Back conditions pose an especially difficult problem because aggravation of symptoms is tantamount to causing disability, and the employer is reluctant to assume the risk of potential disability.

All but five states now have these special funds. The trend is toward broader coverage. Paul E. Gurske, Director, Bureau of Labor Standards, U. S. Department of Labor, reports that "For the past year or so a group of Workmen's Compensation specialists in the United States Department of Labor have been hard at work on a comprehensive reappraisal of Workmen's Compensation Law. They have been trying to select and combine the best standards found in all the state Workmen's Compensation laws, bringing them together in 'suggested language' for a bill which the states can, if they wish, use as a guide when they want to make improvements in their present laws. This draft of proposed standards draws on the most liberal of the provisions found in present state laws and attempts to remove as much of the employer's risk in hiring handicapped workers as is administratively possible. It provides that prior permanent impairment shall be deemed to include any permanent condition which is likely to be a hindrance or obstacle to employment. Like the New York law, it provides that the employer's liability, instead of being calculated separately for different kinds of injuries, be simply limited to a straight period of 104 weeks."

James W. Watts

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Editorials

"YOU HAVE AN X-RAY BURN"

When a physician sees a patient with an acutely inflamed skin which the patient says became worse after he got an X-ray treatment, there is a great temptation to say to that patient, "You have an X-ray burn." While radiodermatitis is possible and admittedly does occur, a physician must be certain, before he makes such a statement, that the radiation which the patient received is the cause of the inflammation. The patient may have already entertained a false notion of an X-ray burn, and to have a doctor agree with him fixes that notion indelibly in his mind. Today when "suit-consciousness" is so prevalent, an unwarranted statement can result in an unjustified legal action against a physician.

A typical example of such a situation occurred several years ago. A middle-aged, well-educated man consulted me for an acute vesicular dermatitis of a certain portion of his body. I gave him a fractional X-ray treatment of approximately 40 r units at 100 KVP, 5 m.a., unfiltered. Just a few days later his dermatitis became worse; it was more painful and more inflamed. He went to a hospital in this city where a well-meaning

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

but ill-informed intern told him that he had an X-ray burn. The logic used by this intern was simple but quite fallacious: This man has an acutely inflamed skin, i.e., a burn: he has had X-ray treatment and X-ray can burn the skin; therefore, this man has an X-ray burn.

I am sure a college student with only a slight exposure to logic could point out the error in this syllogism. Not all burns on the skin are produced by X-rays nor does every exposure of the skin to X-rays produce a burn. Not only did I lose the patient but he threatened a suit for an X-ray burn which he did not have.

With the modern X-ray machine of today, the voltage is preset, the milliamperage checked by 2 meters, the distance mechanically measured by a rule held in place on the machine, and the time measured by an electric clock switch. The margin for error is considerably reduced, and even though the patient's dermatitis got worse after the X-ray, he could not have had a radiodermatitis.

In another instance I examined a physician who claimed to have a chronic radiodermatitis from injudicious use of X-rays. At the time I did not know the circumstances of the case nor the identity of the therapist. However, the physician's skin failed to show any of the 3 cardinal symptoms of chronic radiodermatitis, namely, telangiectasia, pigmentation, and atrophy. Yet this man could not be convinced that he did not have an X-ray burn. Subsequent inquiry revealed that the total dosage of X-ray received by this physician-patient was inadequate to produce a chronic radiodermatitis and it had been administered by a physician adequately trained in X-ray therapy. Similar cases could be quoted to show that a diagnosis of radiodermatitis, whether acute or chronic, should not be made without justifiable evidence and adequate knowledge of the circumstances.

Acute radiodermatitis may be divided into three degrees, as we divide burns. First degree radiodermatitis is manifested chiefly by erythema, and the patient complains of a burning, tingling or itching sensation. It develops only after a definite incubation period of approximately 5 to 7 days and reaches its maximum in 10 to 14 days. The area is first bright red, then becomes a dull red, finally brown, and disappears with slight scaling in 3 to 4 weeks. If a hairy area of the body has been included, the hair disappears about the third week and usually returns, although occasionally it may not.

Although there is no sharp distinction between first and second degree radiodermatitis, the second degree is characterized by erythema and edema and may present vesiculation and even transitory ulceration. This develops after a latent period, but 2 to 3 days sooner than the first degree burn. The color at first is scarlet, later becoming purplish red or livid. After 10 to 14 days there is partial or complete destruction of the epidermis and we have a weeping red or raw surface. The patient now complains not only of burning and itching but also of pain. This degree of radiodermatitis heals in a period of 6 weeks to 3 months, and the hair loss, if any, is permanent. Over the next several months, the skin may heal and appear clinically normal.

Likewise, the transition between second degree and third degree radiodermatitis is not sharply demarcated, but third degree radiodermatitis involves the true skin. It is characterized not only by erythema and edema but by persistent ulceration and necrosis. It develops in 2 to 3 days and its color varies from a livid shade to a bluish red. After 2 to 3 weeks there is intense edema with congested blood vessels and induration of the skin. The epidermis then exfoliates and leaves a raw, denuded dermis. Then the process may take one of two courses. It may develop a hard, dry, necrotic crust, in fact, a dry gangrene of the skin, which after several weeks or months sloughs off and produces an ulceration, or it may directly produce the characteristic radiation ulcers. Radiation ulcers have a punched-out appearance with sharp margins and glistening non-granulating floors. While the ulcerations are usually persistent, there is partial or occasionally complete healing with the characteristics of chronic radiodermatitis, which, as previously noted, are pigmentation, telangiectasia, and atrophy.

In order to make the diagnosis of radiodermatitis one must consider these clinical manifestations; in fact, the diagnosis of acute radiodermatitis is extremely difficult without knowledge of the amount and quality of the radiation the patient has received. It is only when the patient develops the unmistakable manifestations of chronic radiodermatitis, namely, pigmentation, telangiectasia and atrophy, that one can make a diagnosis, based on clinical observation alone, of radiodermatitis.

I have tried to point out that the diagnosis of radiodermatitis on clinical observation alone is fraught with difficulty unless one sees the triad of chronic radiodermatitis, namely, pigmentation, telangiectasia and atrophy. Lacking these, one must depend upon an accurate knowledge of the dosage and quality of radiation, together with the time interval between administration and examination of the patient. To avoid an unwarranted defamation of the radiotherapist and unjustified resentment or even suit on the part of the patient, any physician who examines a patient presenting an inflamed skin following radiation must proceed with the greatest caution before he applies the damning appellation, "You have an X-ray burn."

RAYMOND A. OSBOURN, M.D.

ERROR OF LIMITING TEACHING MATERIAL TO PATIENTS WITH ORGANIC LESIONS

The designation of teaching material as representing only the case histories of patients suffering with organic lesions may be a universal policy. It is usually relatively simple to diagnose an organic lesion of a patient. After diagnosis the accepted types of therapy are listed in textbooks. It is far more difficult to diagnose and treat the miserable patient who exhibits no organic lesion. He has frequently traveled from doctor to doctor or from clinic to clinic.

Since a large part of private practice consists of these patients who do not exhibit organic lesions but who are really sick and require sympathetic evaluation, it is quite evident that most of the dissatisfied patients are among this group. Therefore, if the students and if the residents have had experience only with patients who have organic lesions, they will be unprepared to treat the patients with no demonstrable organic lesions.

The young physician may forget that the patient who comes to his office expects to pay for it and he is dedicating a lot of time to make the visit. He may forget that if the patient is having great distress, the latter may think that there exists a grave disease. The physician should not become angry because he cannot make a diagnosis or because he thinks the patient has no organic lesion. Should he do so he is losing an opportunity to render a great service and to make a reputation. The spastic physician who has no imagination and who gloats that he desires to see no patients except those who have organic lesions is certainly not fulfilling the requisites of his great responsibility. Not long ago I met a young surgeon who exulted over the fact that he gave patients little time and attention when they did not truly exhibit organic lesions. In fact, he stated that he frequently "told them off." It was indeed painful to hear such words from one who was just beginning a surgical career. He will either change his attitude or fail to achieve satisfaction. It is no credit to a medical school or to a training program to produce such a surgeon. Rather he should have been advised years previously to utilize his endeavors in another field.

The patient does not live to produce exotic diseases to excite the physician. The physician does exist for the purpose of advising and caring for the ills and discomforts of the patient. He should exhibit sympathy and understanding to all who request his professional services. The doctor must often work in close coöperation with the priest or minister, for he needs them. The practice of medicine can well be evaluated as a sacred trust and it can be conducted on the noblest basis only by those who exhibit and recognize the existence of a Supreme Physician.

O. HUGH FULCHER, M.D.

JOINT SEMINAR FOR ALLERGISTS

Washington, D. C. is blessed with a number of large and outstanding medical institutions, including the National Institutes of Health, Walter Reed Army Medical Center, Veterans Administration (Mount Alto) Hospital, the Naval Medical Center, as well as many smaller medical installations in nearby military bases. All of these institutions have scientists who are actively engaged in research projects. With the exception of a relatively few civilian consultants and an occasional formal lecture by an authority from these institutions, there is very little opportunity for the exchange of ideas between physicians in the Government services and local physicians in private practice working in the same field, and I believe they both suffer by this separation.

It is true there have been some attempts to bridge this gap, including such projects as the sending of bulletins of outstanding events at one institution to local physicians, some lectures by members of one institution at another local hospital, and occasionally a joint program, particularly in the field of cardiac diseases. However, much more of this should take place.

The recently formed Allergy Society of the District of Columbia has as a vital part of its program a desire to bring together and unify all local workers in the field of allergic diseases, both in and out of the Government. To this end, all of the known allergists in this area are notified of each meeting, and at every meeting more and more of the physicians in these Government institutions are getting to meet and to discuss their common problems with physicians engaged in private practice. As a direct result of such meetings an informal seminar is scheduled for the near future, to be sponsored by the District Allergy Society. The allergists of the U. S. Naval Hospital will be host and the program will be presented by the staff of the National Institute of Allergic Diseases. The meeting will be open to all physicians interested in allergic diseases. This is a small step forward in "togetherness," but it is mentioned merely as a plea for more of our societies and organizations to plan meetings and events that allow all local workers in a given field to know each other, their plans, their problems, and their goals, to the advantage of all concerned.

ALVIN SELTZER, M.D.
President, The District
of Columbia Allergy Society

In and Out of Focus

BY THE OBSERVER

Our New Look

Although changes in the recently authorized reorganization of the Medical Society will not basically alter the conduct of its affairs, they will give the organization a "new look." They should also contribute to its efficiency and stimulate membership interest.

The next organization year will now begin on January 1, 1959. Officers and committee members whose terms would previously have expired on July 1, 1958, will serve an additional 6 months. Nominations for elective offices and election of officers will take place at the Annual Business Meeting, which will be held in November, 1958. It is planned to schedule this meeting in connection with the 27th ANNUAL SCIENTIFIC ASSEMBLY, although no definite decision as to date has been reached by the Executive Board. The dates of the ASSEMBLY are November 24, 25, and 26, 1958.

The fact that the organization's affairs will be conducted on the basis of the calendar rather than the fiscal year will make it possible for committees to begin functioning without delay. In the past, they have been appointed by the President and confirmed by the Executive Board in late June. They have taken over their assignments on July 1. Because summer here as elsewhere is a vacation period, there has been no activity to speak of on the part of many committees until September and sometimes October. Obviously, this has slowed down the progress of the organization considerably. The current arrangement will remedy that situation.

So far as the President and his "team" are concerned, the ANNUAL SCIENTIFIC ASSEMBLY will be a fitting climax to the year's activities. Up to this time it has been an anticlimax. The President, taking office in mid-year, has found himself in the midst of plans for the "big event" which was over before his administration had gained momentum. Thereafter followed the letdown. Now, his administration will be brought to a fitting close.

Because of the change in the date of the Annual Business Meeting to November, there will be a long stretch during which there will be no regularly scheduled business sessions. However, special business meetings will inevitably be necessary. The vacuum with respect to scientific programs between the Midwinter Seminar, which is held in February, and the ASSEMBLY will be filled by Motion Picture Nights, a new program to be sponsored by the Program Committee during the months of March, April and May; closed-circuit television programs; and such scientific programs as the Committee agrees will be of value and interest to the membership.

Returning to the Annual Business Meeting, the procedure followed will be somewhat different than in the past. However, no final decision has been reached as to its exact form. It has been suggested that all reports be published and sent to the membership in advance for action at the meeting. Also, that brief statements be made by the President and the Chairman of the Executive Board touching on matters of vital importance to the medical profession.

Although every effort was made by the Special Committee on Constitution and By-laws, whose amendments implemented the reorganization program, to make further changes unnecessary, it is already evident that there are still a few loose ends. It is hoped that these can be gathered together without further modification of the Constitution and By-laws, which is soon to be recodified, eliminating all amendments to date.

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Behind the Scenes

A week or so before these lines were written, your Observer had occasion to discuss the contemplated Motion Picture Nights with an officer of the Society. The officer thought the programs were a good idea because several members with whom he had talked were of the opinion there was need for them, if for no other reason than to demonstrate to the Society that something tangible was being done for the general membership.

"Most members," he said, "know little or nothing about what goes on behind the scenes of the Society. They are generally unaware of the tremendous time and effort devoted by the administrative staff and a number of committees to matters directly affecting them individually. That is why I believe more programs of the kind which are contemplated would be a good thing."

These observations have been repeated by physicians with some variation over many years. Unfortunately, they are largely true and perhaps always will be, although there is basis for optimism. Certainly, progress has been made and, unquestionably, more members are better informed about the Society than ever before. Admittedly, there is still much room for improvement.

The term "behind the scenes" suggests that there are Society activities which somehow are reserved for the "inner circle." Your Observer appreciates that this interpretation was not intended by the officer who talked with him. The facts are that much more is published about the Society's program than is read and that important business meetings attract what charitably might be described as a disappointing number of members. If he devoted just a little effort and time to familiarizing himself with the Society's program, the average member would know as much about the "behind the scenes" activity as any officer of the organization.

Reports are, to say the least, not exciting to listen to or to read, but they do tell the story of what goes on in the Society. They are not only read at business meetings, but are published in the MEDICAL ANNALS. There are also the annual reports, which review in much more detail than is usual among medical organizations what has gone on during the past year. Finally, there is this column which from time to time reports, in what is to be hoped a readable manner, the more important activities of the Society.

As an example of the failure of members to read what the Society makes available to them, there was a committee meeting recently at which there was considerable discussion about the growth of prepayment medical plans and some of their objectionable features. Several present expressed the opinion that more should be written and published locally on this subject. Your Observer reminded the group that the MEDICAL ANNALS publishes more information on this subject than any other state medical journal. He referred to the January, 1958, issue in which there was considerable material relating to prepaid medicine—2 editorials and 3 items in this column.

Although the need for better professional relations has long been recognized by medical societies, the necessity for it has now become acute. This is equally true of medical society-sponsored prepayment plans. Recently, at a Public Relations Conference of Blue Shield Plans held in Chicago, speakers on the program repeatedly emphasized the urgent need for more effective professional relations. Intelligent and enthusiastic medical support for Blue Shield Plans is imperative, they said, if these plans are to make satisfactory progress. Many methods of informing physicians, it was stated, have been tried with varying results. The individual approach in an effort to stimulate active interest, it was agreed, holds the greatest promise.

Suggested by your Observer were small round table luncheons such as the Society sponsors for its new members. These are very informal and dispel inhibitions which exist in a large gathering. Those present at the Conference were favorably disposed to the proposal.

There is no doubt about it, there is great need for better coöperation and understanding by physicians of the problems of medicine. The point of these comments then is this: There can be no relaxation in the effort to enlighten physicians about what goes on in their organizations. Although often frustrated by failure to "get their message across," officers of medical societies and of their prepayment plans can ill afford to become discouraged. They must continue unrelentingly by the individual approach, if possible, to stimulate a desire on the part of physicians for information about their own organizations.

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Third Party Controversy What is described in the January, 1958, issue of the *Pensylvania Medical Journal* as a long-standing "feud" between organized medicine and third party groups has "largely narrowed down to a contest between the medical profession and welfare funds established and controlled by labor unions." The main points in dispute are "the rights, privileges, and responsibilities of the opposing groups."

Controversy between the Medical Society of the State of Pennsylvania and the United Mine Workers over their prerogatives has been especially bitter. While UMW is not mentioned by name in the above-quoted editorial by Dr. W. Benson Harer, an officer of the Pennsylvania Society, there is no doubt that he had this union in mind when he wrote:

> "The medical profession claims that licensed physicians as individuals alone possess the right to practice medicine and that no third party has the right to interfere in any way with this privilege. It claims that all legally licensed physicians must be considered competent and therefore should be eligible to participate in any program under any third-party sponsorship. It claims the right to be the sole judge of the competency and integrity of its members and to be the only organization that may discipline members of the profession. It battles to retain the traditional physician-patient relationship and the free choice of physician and hospital by all patients. It asserts its right to prevent control of hospitals and other medical facilities by any third party. It demands fair compensation for services rendered and at the same rates as normally paid by patients who pay their own medical bills. It seeks to prevent the exploitation of the medical profession as a whole and individual doctors by any group or agency.
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> "The medical profession accepts the responsibility to provide complete medical care of high quality to all patients at costs commensurate with present-day economic standards. It stands ready to investigate charges of incompetency, unethical practices, and exploitation of patients or third parties against individual doctors and to discipline all doctors proved guilty of such offenses."

Dr. Warren F. Draper, Executive Medical Officer of UMW's Welfare and Retirement Fund, says that the key to the controversy is Dr. Harer's statement that the organized medical profession in Pennsylvania "stands ready" to discipline doctors guilty of "incompetency, unethical practices, and exploitation of patients. . . ." On the basis of its record, Dr. Draper states organized medicine "is either unable or unwilling to establish and enforce effective means" of judging and disciplining its members.

Dr. Harer describes the Union's activities in this way:

> "Labor unions contend that welfare funds exist as a result of actual need on the part of union members and their families and have been established as a result of collective bargaining. The unions contend that services provided by welfare funds constitute a part of earned pay for services performed by workers. Unions claim that, as the bargaining agents of their members and custodians of such funds, they have certain rights, privileges, and responsibilities. They demand the right to set standards of medical treatment, to judge the competency of doctors and hospitals, and even the right to question the actual need for medical or surgical services to individual beneficiaries of the fund. They insist upon their right to have doctors of their choosing appointed to hospital staffs. They assert their so-called right to black-list doctors and hospitals without filing specific charges against them and without investigation of alleged abuses.
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> "The unions have claimed that it is their privilege and responsibility to determine amounts and collection of contributions to the funds, and to control completely expenditures from the funds. They establish eligibility standards and impose conditions and limitations of services to be paid for by the funds."

Dr. Draper says in connection with the above that the impression is given that organized medicine has been dealing with lay representatives of UMW when, as a matter of fact, it has been with physicians employed by the union's Welfare and Retirement Fund who insist they cannot evade their responsibility for maintaining the highest standards of medical care.

Each side charges the other with unreasonableness and unwillingness to "act in good faith." As a result, writes Dr. Harer, "medical prestige has plummeted among [union members]." The press has, at times, he says, been hostile. Patients too have suffered because they could not go to the physicians or hospitals of their choice—a charge which Dr. Draper denies. Individual physicians have been hard hit because of discrimination. Labor unions have also lost some ground in the struggle.

Dr. Harer concludes his editorial with this paragraph:

> "The only need is for men of integrity to sit down and honestly negotiate a settlement—fair-minded men with intelligence, a vast amount of patience and an unyielding determination to reach a just and equitable solution—men who will put aside all thoughts of personal gain and dedicate themselves to the task at hand—men who will approach the problem with open minds, not with inflexible, preconceived ideas of their own—men who will concede rights actually possessed by the opposition but who will battle valiantly to safeguard the valid rights of their own constituents. We know there are such men in the medical profession. We believe there are men of such qualities in labor unions. Let's seek them out and put them to work. Let's solve this problem as soon as possible, for the good of all concerned."

Dr. Draper says that men of good will did get together. The result was the Pennsylvania Agreement which was later arbitrarily declared "null and void, terminated and ended" by action of the Pennsylvania Medical Society.

While there is no immediate prospect of the controversy being resolved, "men of integrity" will eventually find a solution.

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The Pilot and Air Safety

It is a safe assumption that few passengers on scheduled flights give any thought to the physical and mental fitness of pilots. They just accept the fact that all safety precautions have been taken both as to aircraft and crew.

It now appears that too much may have been taken for granted. Investigations which have been or are being conducted by various groups and individuals raise the question as to the adequacy of present physical standards. This is emphasized in a thought-provoking article entitled, "Medical Legal Problems in Civil Aviation," by Stanley J. Aronoff and David A. Talman of the Harvard Law School, which appeared in Northwestern University's *Journal of Air Law and Commerce* in the 1957 Summer Issue.

This article and a study now in progress sponsored by the AMA's Committee on Aviation Medicine are the basis for these comments. The importance of the Committee's assignment was recognized by the AMA's House of Delegates which, at its meeting in Philadelphia last December, adopted a resolution in which it was stated that the Medical Department of the Civil Aeronautics Administration "is grossly inadequate as to numbers of physicians and other personnel to perform its functions, educational and supervisory facilities and research activities" and that this is "not in keeping with the importance of [the Department's] responsibilities and renders its operation ineffective."

Recommended was the establishment of "a completely adequate and competent Medical Department . . ." in the Civil Aeronautics Administration directly responsible to the CAA Administrator; also that the Department be provided with "an adequate budget to carry out its various functions in the areas of periodic examination of flyers; the selection, training, supervision of examiners; research in the noncompetitive areas of Civil Aviation Medicine; the examination of accidents including the pathology of the deceased in fatal accidents; and such other functions as the Medical Director may find necessary to accomplish his mission . . . ."

Aronoff and Talman clarify the relationship of the Civil Aeronautics Board and the Civil Aeronautics Authority as follows: "Two separate agencies, the CAB and the CAA are required by law to deal with the regulation of air safety. The former is the rule promulgator and quasi-judicial body; the latter is the enforcer and implementor."

Although revisions of the current physical standards for airmen originate in CAB, CAA certifies and recertifies the physical fitness of pilots. There are presently 3 classes of airman certificates: airline transport (Class I), commercial (Class II), and private (Class III).

A Class I certificate is the one with which these remarks are primarily concerned, because the pilot is certified "to carry passengers for hire in instrument flight conditions in an aircraft of any weight." The physical requirements for this class are most rigorous and the pilot must be recertified every 6 months.

When a pilot applies for a Class I certificate he is given a list of designated medical examiners from which he chooses one in the area in which he lives who will determine whether he meets the physical standards for certification. Although the examining physician is provided a Guide for Medical Examiners, he has little supervision, and the adequacy of the examination, according to Aronoff and Talman, rests upon the competence of the doctor and the seriousness with which he takes his responsibility.

Much, too, depends on the pilot's willingness to give a complete and honest account of his medical history. Not all are willing to do so, especially if the pilot thinks he has a defect which will cause a denial of his certification. He will, it is said, go to great lengths to obtain clearance whether he is entitled to it or not.

In the event the pilot does not meet the certification requirements, he may be eligible for flying on a "waiver." On the other hand, if he has a disqualifying defect his application is rejected by the CAA Regional Medical Officer. However, he has a right of appeal to the CAB, which has no regular medical member or medical advisory board. The CAA's medical expert testifies as to the reason why the certificate is refused. The pilot may counter by calling his own specialist to refute this testimony. After all the medical evidence is heard, the trial examiner renders a decision. Often it is in the applicant's favor.

As to the adequacy of the physical standards, "the most elementary problem, but the most difficult and expensive one to cure, is the lack of authoritative medical research concerning physical standards." Civil air regulation has always relied on military studies and standards. These were introduced in 1926 and are "basically echoes of the prevailing military rules." Although military research in this field has progressed, their value to CAA "has been lost by its failure to keep abreast of changes in military regulation, testing and research."

There are a number of larger airlines that have their own medical departments. Flight "physicals" given by these airlines are more extensive than those required by the Civil Air Regulations. Nevertheless, as has been stated, there is still much to be learned about physical requirements for flying. Stricter supervision of physical examinations is also indicated, it being pointed out that there is no substitute for the alertness and skill of the examining doctor, preferably trained in aviation medicine. Proposed, too, are medical examination forms in which questions are "designed to spotlight major physical and mental disabilities, and a reminder of the statutory penalty for wilful misrepresentation."

CAA's Medical Division annually reviews 160,000 reports of physical examinations. Interestingly, "disqualifying disease and disability" among individuals of flying age is generally 15 to 25 per cent; however, the rejection rate for pilots is less than 1 per cent. Twenty per cent of the airmen, it is stated, carry no form of medical certification whatsoever.

In a statement to the AMA's Committee on Aviation, Dr. John E. Smith, Acting Chief, Medical Division, Civil Aeronautics Administration, emphasized the tremendous administrative work in his department. In his opinion, this was not well handled and steps should be taken immediately to remedy the situation. For example, he said there was a backlog on August 13, 1957, of approximately 50,000 cases in the Washington office. Consequently, many short cuts had to be taken.

He stressed the need for better qualified examiners, most of whom, he said, were not equipped to examine pilots adequately. He also suggested that there was a need for a panel or group of consultants available to his office in the final review phase of applicants.

The AMA's Committee is still studying this problem and will shortly present its final conclusions. Legislation has been introduced in the Congress which, it is hoped, will remedy the situation. Whether or not Congress will take this problem seriously enough to act without further delay remains to be seen.

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A Critical Appraisal

"We ought", writes Dr. R. L. Manning,[1] of Australia, in the London *Lancet*, "to look at our profession critically from time to time and reassess its role; for the world we work in is always changing. When changes are gradual they may not be noticed; and so it happens all too often that we, like our history-books, are quite a few years and ideas behind the times."

Dr. Manning's "hard look" at his profession will not win unanimous approval among his colleagues. Most of them, however, will concede that his comments, if at times unjustified, are stimulating.

Dr. Manning begins his appraisal with an evaluation of the "weaknesses . . . inherent in medicine."

> "Medicine," he states, "cannot be practiced as a hobby, but demands undivided attention. Therein lies, I think, one of its fundamental weaknesses, for no man can devote all his time and energy to one pursuit without suffering from deprivation of other pursuits or activities. To be a good doctor one has to be more than a doctor, but one has time only to be a doctor.
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> ". . . Perhaps the main fault in our calling is its emphasis on the abnormal. All doctors are pathologists, looking for deviations: what falls within the limits of normality lacks interest or at best is taken for granted. We do not say 'normal'; we say 'nothing abnormal detected.' Now, admittedly, if there were no sin, there would probably be no virtue either; but is it reasonable to dwell on sin? Just as virtue is more than lack of sin, health is more than absence of disease; yet as doctors we concentrate on removing or preventing disease only. I contend that this preoccupation with disease or abnormality must warp our outlook. . . .
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> "Moving away from the shortcomings of medicine as they affect the doctor, let us examine those which affect the patient. Here . . . specialization must be mentioned; while the patient's heart or brain or gallbladder may benefit from specialization, the patient as a whole is the loser. When a lesion is detected, his medical advisers' attitude may be that, if the lesion is cured or removed, then the harmony of the body will restore itself. Once a diagnosis has been made, the patient as a whole may be deliberately pushed into the background in the hope that the line of treatment chosen will obviate the need to probe more deeply into a multifactorial etiology. Then there is the weakness introduced by the patient's limitations in understanding and coöperation. It is relatively easy to treat a patient to whom the illness can be explained and who can be brought to help himself; but when he cannot or will not understand his complaint, and the way it affects him, medicine becomes immeasurably more difficult.
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> "Again, there is the unpredictability of the individual case. Whilst the dissimilarity of any two cases of the same condition makes for interest to the doctor, the variability of prognosis is a handicap to the patient, since it usually results in a guarded forecast which allows for the worst outcome and may cause needless restrictions and worry."

Having pointed out the "weaknesses," Dr. Manning examines what the "doctor can do and what he cannot do." Speaking of the advances and progress in medicine, he says, "unquestionably many things are possible today which were impossible one or two generations ago." Without wishing to detract from what he calls diagnostic and therapeutic achievements, he believes that "real progress is much less than is claimed." "We have managed to change the pattern of disease: that is all." When medicine solves one problem, it only leads to another, he observes, pointing out that there are more doctors kept busy today than 50 or a hundred years ago.

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[1] Lancet: December 21, 1957, p. 1274.

Technological advances, he states, are responsible for two main problems, the first being the lengthening of man's lifespan and the second, the group of iatrogenic diseases. With respect to the first category medicine cannot be curative or restorative, but at best "palliative and delaying." In regard to iatrogenic diseases, he lists "sensitization reactions, drug fevers, chronic drug intoxication (e.g., from barbiturates and tranquilizers), and complications due to treatment with powerful drugs (often more serious than the original condition), and also more subtle ill health in the form of mental insecurity and fears induced by medical propaganda designed to bring illness to light at the first appearance of symptoms." What he calls stress diseases he lists as the result of technological development "too rapid for the slower mental and moral development of mankind."

He takes a dim view of the confidence placed in mechanical and electrical appliances. He is critical, too, of surgeons who "ignore the lesson of normal physiology" and fail at times "to consider . . . the price of heroic surgery."

Having thoroughly probed "medicine's weaknesses" he poses the question: What is a doctor and what is his role? He says it is that of "a repository of knowledge not available to the general population, . . . endowed with some innate skill, enhanced by training and practice. Compared with his neighbor, he is not necessarily better integrated with his environment, though he has a better opportunity of watching the effects of failure of such integration. If he is honest with himself he will freely admit that in a large proportion of cases he cannot or need not attempt to alter the natural history of disease in his patients: many will recover, irrespective of treatment, and some will die whatever he does. These two groups then mainly need advice, reassurance, or comfort—in the mixture appropriate to them. A minority will require the application of that particular skill which distinguishes the doctor from the successful charlatan. The remainder consists of those who have no disease but fear it, or seek refuge in physical symptoms from mental unrest, dissatisfaction, or imbalance."

As stated in the beginning, most physicians will not settle for all of Dr. Manning's views for there are other aspects of the story which have been ignored.

T. W.

MEDICINE DOWN THE DRAIN*

Throughout December the rains in the Washington area were twice the normal amount, and with the rains came water in the basement stacks of the National Library of Medicine. A few shelves of books in the most dangerously threatened area were moved; unfortunately, all cannot be moved. Lacking space, odd alternatives such as coating the books with an anti-mildew mixture of copper sulfate have been considered, especially for those books in the dampest sections of the stacks.

Early last month the Executive Officer of NLM and the Superintendent of the Mall Group of buildings, Public Buildings Service, made an extensive inspection of the situation; as a result of their survey, several actions will be taken. An attempt will be made to waterproof the interior west wall of the basement stacks, and a concrete splash pan will be constructed on the exterior of the wall to eliminate seepage; all interior downspouts remaining in the building will be capped and replaced with exterior downspouts. The interior west wall of the upper stack area will be replastered and repainted. In addition, some gratings in the main stack will be replaced, and exterminators will turn their attention from the plague of rats, now somewhat abated, to incursions being made by cockroaches and silver fish.

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* Editor's note: This item, reprinted from the *National Library of Medicine News* (February 28, 1958) sets forth in some detail the unique efforts employed by the richest country in the world to preserve its priceless collection of medical literature.

PROCEEDINGS OF SPECIAL BUSINESS MEETING

Dr. James W. Watts, President of the Medical Society of the District of Columbia, presided at a special Business Meeting held on January 29, 1958. Dr. Herbert P. Ramsey, Chairman of the Executive Board, read the Interim Report, published below, which, with corrections as noted, was adopted as a whole.

Following action on the report, a documentary color film, "M.D. International," sponsored by the American Medical Association and Smith, Kline & French Laboratories, was shown. The film portrayed doctors at work in Hong Kong, Korea, Borneo, Burma, Lebanon, Nepal, Ethiopia and India.

INTERIM REPORT OF THE EXECUTIVE BOARD

Tonight's meeting was scheduled by the Executive Board because, in its opinion, there were items of business which required prompt action by the Society or were of such a nature that information about them should be disseminated as widely as possible.

Reports at best are usually overlong. This one is no exception. However, an effort has been made to make it as brief as the subject matter permits.

Proposed Election of Mr. Paul Foley, Deputy Director of the Department of Occupations and Professions, District of Columbia Government, to Honorary Membership. Mr. Foley is well known to many physicians in the District of Columbia, not only in the above capacity but also as Assistant Secretary of the Commission on Licensure. In the latter position he has for more than 20 years been deeply interested in problems relating to licensure. Always coöperative where physicians are concerned, he has won their respect and affection.

Mr. Foley has been a resident of the District of Columbia since 1916. He was a page in the House of Representatives in 1916-1917, following which he attended Roosevelt High School. A graduate of the American Institute of Banking in 1924, he subsequently attended the Columbus University School of Law, in Washington, D. C., where he received his LL.B. degree in 1938.

Mr. Foley became Assistant Secretary of the District of Columbia Commission on Licensure in 1935. Later, when the reorganization of the licensing agencies in the District took place in 1953, he became Deputy Director, District of Columbia Department of Occupations and Professions.

The medical profession of the District of Columbia has had no better friend than Mr. Foley. The Executive Board is therefore pleased to recommend his election as an Honorary member. In conformity with the requirements of the Constitution and By-laws his membership cannot be voted on until the next business meeting.

Proposed Life Insurance Program for Society Members. On November 16, 1956, Dr. Richard H. Todd proposed to the President of the Society that a committee be appointed to investigate the desirability of a life insurance program for the Society's membership. The Board was favorably disposed and, at its meeting on December 4, 1956, authorized the President of the Society to appoint "a planning group." The "group," designated the Committee on Insurance, consisted of Dr. Philip H. Philbin, Chairman, Dr. Frederick B. Brandt and Dr. Paul F. Jaquet, Jr.

As soon as it began to function, the Committee discovered that group life insurance plans were based upon employer-employee relations and that in the District of Columbia such plans on an association basis were illegal. Any plan adopted locally would, therefore, have to be one in which physicians are insured on an individual basis.

Of the 200 medical societies throughout the country contacted by the Committee, 24 had life insurance programs. Letters were written to the insurance companies underwriting these programs as well as to a few of the larger companies. The aid of local insurance brokers was also enlisted in an effort to find a program the Committee could recommend. Each was requested to submit a plan tailored to the needs of the Society's membership.

Eight companies submitted programs. They were: Northwestern National, John Hancock, Banker's Security, Mutual of New York, Metropolitan, Associated Underwriters of America, Continental Assurance, and Minnesota Mutual. In the opinion of the Committee, the program offered by the last named insurance company surpassed the others and it recommended its approval by the Executive Board.

The Minnesota Mutual Insurance Company appears to have had more experience with the type of program in which the Committee was interested. Its program has been adopted by the Chicago and New York medical societies.

The Minnesota Company ranks in size among the top five of all of the life insurance companies in the United States and Canada, with over 1½ billion dollars of insurance in force. The Company and its local agents will assume the promotion of sales, the issuance of policies, the collection of premiums, and the disposition of benefits. Members and the administrative staff of the Medical Society will have absolutely no responsibility other than on a personal basis. Facilities of the Society will not be necessary in any way.

The plan has been designed specifically to do three things:

1. To provide life insurance protection under individual policies at a cost considerably less than the cost of any policy of pure Term Insurance obtainable at a comparable age.

2. To guarantee the availability of needed life insurance protection without medical selection, subject to adequate participation.

3. To guarantee the availability of an exchange to permanent Life Insurance without medical selection.

FEATURES OF THE PLAN

1. Low Cost

Each doctor may acquire $10,000.00 of 1-year renewal term Life Insurance at lower rates than can be obtained elsewhere.

The annual rate for the $10,000.00 is based upon 6 age brackets as shown below:

Age	Annually	Semi-annually
Under 30	$50.00	$25.50
30 to 39	70.00	37.75
40 to 49	100.00	51.00
50 to 54	160.00	81.50
55 to 59	220.00	112.00
60 to 64	240.00	122.50

2. Permanent Insurance

At the end of 10 years, the Term insurance will automatically convert to a Whole Life (or Ordinary Life) contract and the insured doctor will be billed at the rate for his then age.

This Whole Life contract is written when the doctor enters the plan and is attached to his Term policy. The Whole Life premium rate, cash values and settlement option payments are thus guaranteed to each doctor in advance.

It is not mandatory for a doctor to exchange his Term contract for a Whole Life policy in 10 years. He may renew his protection for another 10 years, or if he is then over age 60, the Term policy may renew to age 70.

Neither is it mandatory for a doctor to continue his Term protection for 10 years. He may exchange it for a Whole Life policy at any time.

Features of the policy offered also include:

Disability Provisions. Should the doctor become totally and permanently disabled before age 60 his life insurance will be continued in effect as long as his disability lasts and without any further payment of premiums.

Double Indemnity. If death comes to the doctor as a result of an accident the designated beneficiary would be given double the face of the policy.

Dividends. These will have the effect of reducing premiums.

The enrollment form includes a brief health statement. Policies will be issued to those who give satisfactory answers. However, when 50 per cent of the medical profession in the community in a given age bracket have submitted applications, policies will be issued to all doctors who did not provide satisfactory answers in their health statements. If the aggregate enrollment reaches 50 per cent then all applicants are accepted "non-medically" irrespective of the participation in their age groups.

Dr. Philbin appeared personally before the Board at its meeting on November 25, 1957. The Board was favorably impressed with the program and voted to recommend its endorsement to the Society.

Adoption of Amendments XXXV through XLVI to the Constitution and By-laws. Some of you will recall that at the Business Meeting on March 6, 1956, the Society voted that a study commission consisting of 7 members be appointed by the President "to consider the reorganization of the Society and report its findings and recommendations" in 1 year.

At the Business Meeting on March 4, 1957, the Commission presented a report containing several recommendations which was adopted. The purpose of the following amendments to the Society's Constitution and By-laws is primarily to implement the recommendations contained in the report. However, several additional amendments are included which would improve the efficiency of the organization, spell out procedures now in effect, and bring about changes which, in the opinion of the Executive Board, are desirable. The amendments were prepared by a Special Committee on Constitution and By-laws, of which the President-elect of the Society, Dr. W. LeRoy Dunn, was Chairman; Drs. Alan F. Kreglow and J. Winthrop Peabody, Jr., were members.

[The proposed Amendments XXXV through XLVI were published in the January issue of the Medical Annals, pages 37 and 38, and will not be repeated here. Dr. Dunn called the attention of members to several errors which had occurred in transcription or copying:

1. Amendment XXXVI. Section 3. The last sentence should read: "On expiration of their respective tenures subsequent members shall be appointed for a term of 3 years."
2. Amendment XXXVII. Section 2. The last sentence should read: "This Section may be altered by action of the Board as to the time these meetings are held."
3. Amendment XXXVIII. Section 2 should read: "Associate members, commencing January 1, 1959, shall pay $15.00 annual dues."]

Upon adoption of the above amendments the Special Committee recommends that the Constitution and By-laws be recodified. When this work has been completed there will be no amendments to the Constitution and By-laws. As a result its provisions will be ascertained with much less difficulty than it is at present.

Medical Economics Forum. The Forum, which will be sponsored by the Medical Council of the Washington Metropolitan Area and the Wm. S. Merrell Company, will be presented on March 27, 1958, at the Hotel Statler, Washington, D. C. The Forum promises to be one of the outstanding events of the organization year.

The Merrell Company, which is underwriting the 1-day program, is sparing no expense in bringing together top authorities to speak on various aspects of "The Doctor and His Practice." Topics to be discussed under this general heading are: The Doctor and the Law; The Doctor and His Office; The Doctor and His Health; and The Doctor and His Life Planning.

For the benefit of those of you who were not present at the last Business Meeting, the Council is composed of representatives of Montgomery County (Md.) Medical Society, Prince Georges County (Md.) Medical Society, Alexandria City (Va.) Medical Society, Arlington County (Va.) Medical Society, Fairfax County (Va.) Medical Society, and The Medical Society of the District of Columbia.

The Board is pleased that the Society has had an active part in planning this program. Further details will be made available in February. A program will be sent not only to the members of our Society and medical societies in the Metropolitan Area, but also to physicians throughout Maryland, Virginia, and bordering states.

Motion Picture Nights. The Society's Program Committee at a recent meeting considered a proposal that 1 evening each month be devoted to the showing of motion pictures in the Society's auditorium. It had been pointed out to the Committee that unusually fine scientific motion pictures were available.

The Committee was favorable to the proposal and voted to undertake a series of motion picture programs. At the Committee's request the Chairman appointed a subcommittee, with Dr. Seymour Alpert as Chairman and Drs. Milton Goldman and Henry A. Grennan as members, to accept the responsibility for the programs.

Motion Picture Nights will be held on the first Wednesday of March, April, and May in this auditorium. Each program will consist of 3 motion pictures of approximately 30 minutes in length. It is planned to ask a member of the Society well versed in the subjects of the films to lead a short question-and-answer discussion period after each picture.

Members of the Society who feel that the Society should be devoting more attention to the scientific aspects of medicine will, it is expected, approve of this innovation. It is expected, too, that they will

(*Continued on page 164*)

BROADER COVERAGE OFFERED BY MEDICAL SERVICE

Broader coverage for a number of widely used diagnostic and therapeutic services offered by the Surgical-Medical Contract of Medical Service of the District of Columbia (Blue Shield) was announced in January by its President, Dr. Donald Stubbs.

The change, which became effective with services rendered on and after January 22, provides for the elimination of a $10 deductible, payable by the patient, which has been applicable to charges for the following services: clinical laboratory services, electrocardiograms, basal metabolism examinations, electroencephalograms, electroshock therapy, radiological services for the treatment of malignant diseases, and diagnostic radiological services.

Benefits for other services offered by the Surgical-Medical Contract have not been changed and subscribers will continue to receive 75 per cent of the Fee Schedule allowances for the Related Services listed above.

In announcing the action, Dr. Stubbs said: "There has been a growing awareness of the need for greater protection against the steadily advancing cost of medical care. A little more than a year ago, on November 1, 1956, Medical Service took a long step toward satisfying this need by offering for the first time the Surgical-Medical Contract which provided a number of benefits until then unavailable and extended the coverage of others.

"For example, after the third day of hospitalization, the new contract offered $5 a visit for up to 177 in-hospital visits for the medical treatment of a disease or ailment during each confinement. It provided allowances of as much as $300 for a single surgical procedure, and the income limits which determine whether the subscriber is entitled to full coverage for services rendered under the Plan were established at $4,000 for the Individual and $6,000 for Family coverage.

"One of the outstanding features of the new program was the provision it made to help pay for diagnostic and therapeutic services in a doctor's office, as well as in a hospital. The list of these services includes electrocardiograms, electroencephalograms, radiological services for the treatment of malignant diseases, diagnostic radiological services, electroshock therapy, basal metabolism examinations, and clinical laboratory services. Until then, benefits were available only for diagnostic X-ray and clinical laboratory services and then only if they were performed while a subscriber was hospitalized for and was receiving related surgical or obstetrical services covered by his contract.

"When the Surgical-Medical Plan was developed, it was deemed advisable to offer coverage for the Related Services on a deductible and coinsurance basis. At that time it was felt the deductible would eliminate many small claims (those of $10 or less) which most subscribers could pay with little or no difficulty. We learned, however, that subscribers generally prefer coverage for Related Services without the deductible feature. This, plus the complexity of keeping account of the deductible payments, led to the decision to eliminate it from the program.

"The additional claims expense that will result from the change I have announced will ultimately have to be passed on to subscribers. Although the additional benefits will be available immediately, there will be no change in subscription charges at this time. In the meantime, a study that is under way to determine the feasibility of expanding the coverage of the Surgical-Medical Plan in other respects will be continued.

"Since operations were begun in April 1948, Medical Service has constantly endeavored to improve its program of protection. The Surgical-Medical Plan has met with an excellent reception during the little more than a year it has been available. Total enrollment in Medical Service now exceeds 640,000, of whom 169,000 have obtained the Surgical-Medical coverage. I believe that the protection of this program, dollar for dollar, is the finest that has ever been made available to the Washington, D. C. area."

BLUE SHIELD'S PROFESSIONAL RELATIONS*

NORMAN A. WELCH, M.D.

Chairman, Blue Shield Commission; Clinical Professor of Medicine, Tufts College Medical School

What is Professional Relations? This question may seem trite, but it deserves some definitive analysis and perhaps some fresh conclusions. In everyday life one speaks of relatives, friends, and acquaintances. Relatives are those bound to us more closely by ties of blood and family. Carrying the analogy further, one may think of one aspect of professional relations as being relations between those who are brothers in the same profession. Perhaps we could take a lesson from the legal profession with its common use of the term "brother lawyer" by which its members keep before the public their consideration that they are professional brothers.

Professional Relations, in the sense in which we use it here today, involves relationships between Blue Shield Plans and the physicians upon whom the Plans at present are totally dependent for success. It has been proved that the public is interested in the product which we have to offer. The rapid growth of Blue Shield in a decade to the point where we now offer some degree of protection to over 40 million people testifies to the fact that this program is not only acceptable to the public but looked upon as a very desirable medium for the prepayment of medical care.

We have shown through careful planning and learning, through creeping before walking, that we can do a job in the interest of the people and which, in my humble opinion, no other agency can do as well. A team of Blue Shield Plans and coöperating physicians cannot be matched by any other program aimed at the same purpose.

Who should have greater interest in the welfare of the public than the physician? He attends the beginning of life and he watches its termination, being ever mindful of his Aesculapian Oath to preserve and protect that life, to make its earthly way more tolerable, and to add to its comfort and happiness the maximum available from his resources. The influence of the humble family physician with his genuine human sympathy is a greater factor in many a difficult case than that of the specialist with his training and knowledge of the latest research. How many times have many of you doctors been asked to be present in the operating room, although you were no more than an added attraction, and even sometimes a distraction, because your presence added solace and comfort to the patient undergoing one of the most dramatic moments of his existence?

Education before Coöperation

We need the utmost coöperation of the physician. Before one obtains coöperation there must be understanding, and to obtain understanding there must be communication. One cannot sit in his ivory tower and assume everyone else knows he is doing a good job and wonder why physicians do not know that by the fact that he runs a Blue Shield Plan and the Plan is the doctors' plan. One of the biggest problems the physician has is not the treatment of the difficult case, but the handling of the neighbors and relatives, who know more than the doctor. This is also true of the executive of a Blue Shield Plan who has to handle some physicians who assume that they know more than the executive director. Why should you assume that the doctor knows all you know about underwriting, rates, and insurance principles? Ninety-five per cent of the doctors are aware of the necessity of continued study to keep abreast of their own professional developments. They are also keen on keeping atune to developments in other aspects of life. Many of them have children in the process of being educated. They have to maintain and develop current knowledge in the changing economic aspects of life and in educational opportunities to protect those children against alterations which may seriously affect their future. They are susceptible to education which you can give them and which you should afford from your individual experience. There is nothing more complimentary to a physician, or to anyone else for that matter, than to ask him to sit down with you and help you solve a dilemma. You compliment his ego or you amaze him that you, in your exalted position, should seek his help when he knows that you must know more about the problem than he.

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* Address delivered at the Professional Relations Conference of Blue Shield Medical Care Plans in Chicago, Illinois, February 3, 1958.

Future of Private Medical Practice

Lest you who are Blue Shield directors condemn me for soliciting your help by asking you to turn the other cheek, let me now turn to the medical profession. Like many of you, had my father died a premature death or had he had the philosophy that a high-school education was more than he had, or had my family unfortunately been subjected to heavy medical and hospital expenses, I would not be appearing before you today. Such potential situations have created in many of us a feeling of compassion for our fellow man and an urge to do more than consider him as a potential fee. Our position as physicians is unique. The one presumed to be closest to God is the clergyman, be he priest, minister, or rabbi. The physician is in the acknowledged second position of human honor. We should humbly appreciate the exalted level accorded to us of being only once removed from that of the minister of God. This places upon us a terrific obligation to fulfill the duty expected of us. Primarily our job is to render unto mankind the talents for which we have been particularly created by the Master. One cannot place financial return as our primary objective. However, the economic situation of life makes it imperative that we adequately support ourselves and our families, and provide for their education and future security. It does not, however, license us to prescribe that one should enjoy luxury at the impoverishment of our fellow beings. Too many times have I seen the burden of illness transplanted to a fellow member of our society so that a physician could tour the world or have his family enjoy luxuries comparable to those of the prosperous Roman Emperors.

The acquisition of a town house, a beach house, and a car for every member of the family hardly justifies the enforced poverty and deprivation of an individual whose family has been subjected to a long and catastrophic illness. I am not speaking of the individual physician who works long hours and who responds to everyone's beck and call and by the dint of his terrific personal sacrifice deserves the just reward of his tireless devotion.

Having properly criticized both the Blue Shield personnel and the individual physician, I feel I now must approach the problem at hand, and having placed myself in an untenable position with both, I am, of course, in a most favorable position to appeal to you for help.

I am most concerned about the future of the private practice of medicine. With 43 million people, ¼ of the country's population, now receiving some medical and/or hospital aid from the Government, one can see more justification for concern. Additional legislation may add another 7 million. I hope you are all familiar with the Forand Bill, and this certainly constitutes a serious threat, considering there are now approximately 14 million people in this country who have attained the age of 65 years. Consider also the lowering age for Social Security to 62 for women and the disability age to 50. The physicians in this country are, in my opinion, in a much more serious situation than those in England, because a gradual chipping away of professional freedom and its acceptance by the people cannot easily be combated. Like the development and growth of Blue Shield Plans, the result of a cautious and gradual Governmental approach is likely to be more stable than an overnight occurrence. The gradual destruction of the wealth of the middle-class people by heavy taxation leaves those people nothing for the future but eventual subsidization and support by the Government. When one considers that the white-collar workers in this country now exceed the blue-collar workers, and remembers that these are the people who get caught in the "squeeze" between heavy taxation and a more or less fixed income, one must be very naïve to think that the past method of private practice can be preserved.

To give you a further example of how the public feels about the private practice of medicine, let me quote from a recent spot survey of one of the largest cities in the United States. In this evaluation ⅓ of those interviewed expressed an opinion that they would prefer a Governmental program for hospital and medical care, and in the second largest city in the same state 45 per cent expressed the same conviction. In the light of such a response, I might ask you if socialized medicine is a dead issue.

There is no immediate evidence that Federal taxation is to be lessened, and, in fact, the suggestion is that it may be increased. Local and state taxation is steadily on the increase; this means that the middle class, from whom the physician derives his support, is to be continually taxed to its financial limit in the foreseeable future. With the steadily increasing age of our population it is obvious, in the light of these circumstances, that a gradually increasing percentage of the population will be taxed into Governmental subservience in their advancing years. This tends to create the growing dilemma of the politician claiming himself alone as the saviour of the people who are in need of medical and hospital care. Once it comes to pass that one large segment of the population receives this so-called free hospital and medical care, it is not difficult to foresee other portions of the population receiving the same consideration. If one bears in mind that only ½ of the expense of Social Security is borne by the employee, this can be seen as a potentially cheap protection by the individual.

Further evidence of what the future may hold is that physicians in growing numbers desire by compulsion to be included in the Social Security system. Even though they know this is not insurance and is economically unsound from an actuarial standpoint, they adopt the Al Smith expression that you just do not shoot Santa Claus. How the medical profession can oppose one form of compulsion, nationalized medical care, and espouse another, Social Security, is beyond my poor comprehension. This, however, is an example of how far down the road of socialism we have gone in this present day.

ALL-OUT PROFESSIONAL RELATIONS

You might well ask me at this point what the preceding comments mean and what they lead up to, and justifiably so. My answer is that I am genuinely concerned about the future of the private practice of medicine. I doubt that anything can save it as we have known it in the past. This is not an idle comment or an observation determined without adequate time and observation. It is a conclusion arrived at after 30 years in the private practice of medicine from which I have obtained my sole income for the support and education of 5 children, and which was the practice of internal medicine as distinguished from the practice of surgery or the more lucrative types of practice, and also as a result of 15 years as clinical professor of medicine in a prominent medical school. I have seen the transition from a short period of required training of a doctor to the long period of postgraduate hospital education. I have seen the picture change from a situation where a doctor did not marry until he could afford to do so to the present situation where half the graduating class in medical school are married and have the obligation of supporting children. The long period of training and the much increased family financial obligations create a need for substantial income almost immediately on entering private practice. It is a natural result to expect better compensation for more adequate training and proficiency, and the public, being the source of the medical private-practice dollar, must pay the piper.

This does not lessen the problem for Blue Shield where the public is the source of the dollar contributed and where the responsibility and obligation to fairly dispense its services and protect its interests are ours.

Part of this problem must be laid at the feet of the medical profession, which in its zeal to protect the public has set up standards of long periods of training to produce a more competent physician. One can hardly expect a boy to spend 4 years in college, 4 years in medical school, and 5 years in surgery, to say nothing of 3 years in the armed services, and at the same time remain celibate or allow his offspring to starve or be maintained by public assistance.

I hope by the preceding comments I have painted a background for the necessity of an all-out professional relations program. Blue Shield cannot survive with the management pulling on one end of the rope and the profession pulling on the other, to say nothing of the patient with the rope around his waist in the middle.

I have a great deal of respect for insurance companies; otherwise I would not carry life insurance. Nevertheless, I know their concern with my welfare is impersonal and involves solely an opportunity for profit. While the agent as a personal friend may moan my early demise, the company is interested in what caused an unexpected loss and what could have been done to prevent the financial catastrophe. Blue Shield with its coöperating physicians brings to a prepayment program that

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
January 21	Dr. Julius Schreiber	Understanding and Dealing with Our Prejudices	B'nai B'rith Lodge
January 30	Dr. I. Phillips Frohman	Clinical Investigation and Treatment of Anemia	New Horizons, Voice of America Radio Program
February 4	Dr. Christopher T. Bever	The Juvenile Years	Grosvenor School Parent-Teachers Association, Bethesda, Md.
February 4	Dr. Jack Kleh	The Medical Program of the Department of Public Welfare	Steve Allison Show, Radio Station WWDC
February 13	Dr. Thomas McP. Brown	The United Way Makes Sense for Health Agencies, Too	Second Annual United Givers Fund Meeting

element of personal feeling for the patient which makes such a plan unique and removes it from the realm of a purely impersonal insurance program. It is natural when the income of our Plans exceeds half a billion dollars that we should become subject to increasing competition for the subscriber's dollar.

I get a little irritated when one asks why we are in competition with insurance companies, when the fact is that they are in competition with us. An insurance company friend of mine recently asked me if I could let him have our revised fee schedule as his company was being asked to quote a firm for similar coverage. Who do you think is competing in this case?

No program can rest on its laurels and we should strive to improve our coverage and extend its availability to other people. The close personal relationship between the physician and a Plan makes it imperative that he understand what is contemplated. He must be taken into your confidence and reasons given for projected changes in order that he may have an adequate understanding of your philosophy and so that he can offer you suggestions and criticism from the standpoint of the practicing physician. More frequent meetings and round-table discussions at county and local levels are desirable. The more intimate and personal meetings in a physician's home where one who is conversant with a Blue Shield program can inform a small group of potential professional missionaries may be more effective than large meetings which are ofttimes poorly attended. The more intimate and personal the approach, the more one may expect in the way of education and resultant coöperation.

These national professional relations meetings have grown in size and importance. I am sure much good results from them, but it must be realized that this conference is mainly to spark that local development and to foster a continuing local program throughout the entire year. There will always be need for such a program, with new men constantly entering private practice, and with changes and improvements in our Plans. I ask you to be ever aware of the fact that the physician is your friend, and his friendship must be cultivated by education and explanation. Such cultivation cannot but help the success of Blue Shield Plans and at least delay what many feel is inevitable, namely, the loss of freedom of private practice by the encroachment of Government and the inability of a large segment of the population to provide for itself because of heavy taxation.

SURVEY OF THE MUNICIPAL HOSPITAL FACILITIES OF THE DISTRICT OF COLUMBIA*

Summary Report: Part II

PHYSICAL FACILITIES AND PROGRAMS

The need for the indigent and medically indigent was estimated to be 1,317 beds. It is proposed to provide 888 of these beds in D. C. General Hospital and 429 in the voluntary hospitals. This is in addition to 384 other beds and 114 bassinets. The 384 other beds are divided as follows: 82 for crippled children, 175 for pulmonary, and 127 for psychiatric. Thus, the total bed complement of this institution is 1,049. In addition, there is a new 248-bed Psychiatric Building under construction.

In an entirely separate institution, Glenn Dale Hospital, maintained and operated by the District of Columbia, there are 648 beds. This is exclusively a tuberculosis and chest hospital.

When the present construction, now underway, is completed, the District of Columbia will operate a total of 1,945 beds.

The proposals include the developing of the following programs on the grounds of D. C. General Hospital: an integrated acute general hospital of 888 beds; a psychiatric hospital of 416 beds (this includes 248 beds in the building under construction and 168 beds in the remodeled Old Psychiatric Building); a unit for the senile of 230 beds; and a chronic disease and tuberculosis facility of 500 beds, 44 of which would be for crippled children.

Table 1 summarizes the present and proposed bed distribution by service and facility.

It is recommended that upon completion of this program, Glenn Dale Hospital be closed.

In effect, the proposed total program will entirely reorganize and regroup the facilities at D. C. General Hospital. The major part of this proposed program is the conversion of the D. C. General plant to an operable and efficient facility.

Recommendations for D. C. General Hospital Physical Facilities

The 3 principal Hospital buildings (Medicine, Surgery and Pulmonary), which stand detached but in reasonable proximity to each other, should be integrated into one composite building. This should be accomplished by connecting them by corridors at all floors and by building patient rooms of ample proportions, modern amenities and therapeutic facilities, on either side of the connecting corridor. This will provide about 60 new beds per floor or 300 beds for the 5 upper floors of the combined

TABLE 1

Present and Proposed Bed Complements and Use

	Rated Capacity	Recommended	Difference
D. C. General			
Children			
Crippled	82	44	−38
Pediatric	72	54	−18
Medicine	248	368	+120
Obstetrics	112	150	+38
Surgery	233	314	+81
Psychiatry	248 127*	416	+41
Pulmonary	175		+281
Chronic & Tbc.		456	
Senile		230†	+230
Total	1,297	2,032	
Glenn Dale	648	—	−648
Grand Total	1,945	2,032	+87
Indigent beds utilized in voluntary hospitals	116‡	429	+264
Beds paid for at Freedmen's Hospital	49‡		

* Changed to 170 during fourth quarter of fiscal year.

† Transferred from St. Elizabeths.

‡ Fiscal year 1957 patient years.

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* Editor's note: This report, prepared by Isadore and Zachary Rosenfield, Architects and Hospital Consultants, and John G. Steinle and Associates, Management Consultants to Institutions, was released for publication in December, 1957. It is being published in 2 parts, of which this is Part II. Part I appeared in the February issue. The text is reprinted in full; some of the exhibits have been omitted.

building, which should be used for acute, short-term patients.

It is proposed to extend the sixth floors of the three principal buildings so that they would be of the same length as the nursing units below. This would produce about 100 beds.

A 2-story base for services should be constructed under and around the consolidated building. This will involve a loss of 113 beds on the first floor.

To meet the principal shortcomings in the present diagnostic and therapeutic departments, these activities should be located in an expanded and integrated form in the base of the proposed consolidated building. This base, 2 stories in height, should contain all the diagnostic, therapeutic and administrative facilities of the Hospital with the exception of operating and delivery, which should be stacked above the base, horizontally contiguous to their respective nursing units; that is, surgery on the second floor and obstetrics on the third floor.

The operating department should be located on the second floor over the broad base of services. It should be contiguous to the south end of the building now known as the Medical Building. On this floor should also be located a postoperative recovery unit.

The obstetrical delivery suite should be placed on the third floor (over the new operating department) to be contiguous to the maternity beds and their nurseries, easily accessible to all supporting diagnostic and therapeutic services and supplies. In consequence to this relocation and expansion, the average length of stay of maternity patients could be increased from the present 3.7 days to the more acceptable standard of 5 days.

There is a finished set of plans for a new operating department proposed on the second floor, over the present laundry and emergency. In the same plans, it is proposed that on the first floor under the proposed operating department, a central sterile supply (now nonexistent) and expanded quarters for the laundry be constructed. Plans for a new building to house the emergency service and patients' records are also in the making. It is proposed that the above plans be discarded for the following reasons:

1. The emergency service would be even farther than at present from the nursing units and the diagnostic and therapeutic services on which it depends.

2. Medical records also would be farther than at present from emergency.

3. The expansion of the laundry would not provide an efficient unit.

4. The central sterile supply would not be central to either the supplies which must sustain it, nor to the several departments which it must serve.

5. The operating department would remain poorly located and would perpetuate decentralized operating facilities in other buildings.

Medical teaching and research will be greatly facilitated by consolidating the Hospital. In addition, the teaching facilities should be integrated and additional space allocated to them.

The teaching and related facilities, for both doctors and nurses, should be organized on a rational and orderly basis. Space within the south half of the second through sixth floors of the Medical Building should be assigned to teaching, research and student facilities.

Service facilities should be modernized and expanded.

The old psychiatric building needs considerable renovation as it suffers partly from age and partly from lack of proper maintenance. Its most significant difficulty is obsolescence. The building layout is no longer consistent with modern ideas of psychiatric care. It is proposed to remodel this building to provide the following beds:

100 beds for child psychiatric care
45 beds for alcoholics and narcotic addicts
23 beds for special studies and research.

When the obstetrical and gynecological patients are moved out of the women's buildings group, these buildings should be altered and made suitable for the care of the senile. It is estimated that these will accommodate 330 patients. These buildings are located reasonably near the psychiatric buildings.

The medical annex building and that part of the children's building not required for long-term pediatric cases should be converted to provide care for the tuberculous. Approximately 300 beds can be provided in these buildings for this category of patients. This will meet the needs of the community when this program is completed.

The interns and residents are housed in 3 nonfireproof buildings. There are plans to replace the oldest of these buildings (Doctors' Residence #1) at an approximate cost of $1,000,000. This facility would house 94.

The nurses' residence is lightly occupied. One wing can be effectively separated from the rest of the building by a partition. This wing can house about 96 doctors.

There is a need for approximately 60 efficiency apartments for married interns and residents. It is, therefore, specifically recommended that the present plans for interns' and residents' living quarters to replace Doctors' Residence #1 be suspended; the wing of the nurses' residence be partitioned from the rest of the building and be converted to living quarters for interns and residents to replace Doctors' Residence #1; and efficiency apartments for approximately 60 married interns and residents be constructed.

The present location of the entrance to the Surgical Building, which houses the administration and the information desk, the entrances to other buildings to which patients need ready access, the entrance into the courtyard of the Hospital, the distance of that courtyard entrance from the nearest bus stop, the route vehicles must travel through the Hospital grounds and through a narrow passage under a building in order to leave the grounds conspire against the orderly and safe circulation of persons and vehicles on the grounds of the Hospital.

It is recommended that the entrance to the Hospital should be from Nineteenth Street to the west face of the first floor of the consolidated building. This will be on a street traversed by buses and near a bus stop. Buses may, under the proposed plan, be routed through the grounds, directly to the main entrance.

In the consolidated building, the proposed new entrance will lead directly to the emergency and the outpatient departments, and will be within easy reach to all the basic diagnostic and therapeutic facilities, as well as to 6 new elevators which will transport patients, medical staff, and visitors to all the acute patient nursing floors.

The internal road system of the Hospital should be thoughtfully reorganized on a functional basis and the parking facilities reorganized and increased from 581 to about 800. Additional parking will be necessary to accommodate the tuberculosis and the senile facilities.

Estimated Costs. There are a number of uncoördinated projects, in various stages of planning, that would cost $5,159,700. These items of planning are not a part of a carefully conceived total plan to improve the operating efficiency of the institution. Most of these items should not be developed further.

The cost of the integrated acute general hospital facility will approximate $6,676,344.

Estimated costs of other work necessary to complete the total facility are as follows:

1. Convert maternity group to 230-bed senile unit	$225,500
2. Convert children's building to 44-bed chronic children and 256 TB beds	114,000
3. Convert medical annex to 200 TB and chronic beds	283,500
4. Expand central services incidental to TB, senile and chronic beds	892,000
5. Convert existing psychiatric building	668,000
6. Power plant improvements	290,000
7. Convert nurses' residence wing to doctors' residence	41,000
8. Construct 60 efficiency apartments for married interns and residents	1,055,640
9. Construct a gymnasium and swimming pool for student nurses	186,225
10. Remodel existing laboratory building	36,000
11. Survey of utilities	40,000
Total construction cost	$3,831,865
Plus 5 per cent contingency and 3 per cent yard work	306,549
TOTAL	$4,138,414

The cost of architectural and engineering fees, supervision of construction, and related items is estimated to be $1,060,242.

The construction program can be summarized as follows:

Integration of acute facilities	$ 6,676,344
Other recommended building changes	4,138,414
Professional fees and supervision	1,060,242
Total cost of program	$11,885,000

Thus, the total cost of all recommended work will approximate $12,000,000. A large part of this amount, $5,140,000, would probably be spent in any event on ineffective piecemeal projects. Other funds may be recovered from the sale of Glenn Dale Hospital, which facility will no longer be needed.

RECONNAISSANCE OF ADMINISTRATIVE MANAGEMENT

General observations were made regarding the Department of Public Health and particularly of D. C. General Hospital.

These areas were not specifically included in the scope of the total study. However, the surveyors had many opportunities to observe the organization and some elements of operation of the Department of Public Health and most operating units of D. C. General Hospital. Consequently, it was believed that the observations and resulting suggestions should be formally submitted for further study and action where indicated.

Department of Public Health

A complete study of organization is indicated. Based on observations of some bureaus and divisions and according to certain recommendations in Volume One of this report an organization chart is suggested. It may be necessary to modify this proposed chart after careful study of all departments.

Implementation of the suggested chart of organization would accomplish the following: create a Bureau of Mental Health; create a Bureau of Medical Care; regroup present functions by program objective rather than by professional classifications; and establish administration, biostatistics, and health education as staff arms of the director.

D. C. General Hospital

The following table summarizes the principal suggestions for D. C. General Hospital by major activities:

Top Management and Organization:

1. Organization structure should be revised.
2. Detailed procedures should be prepared for all units. Policy decisions should be reduced to writing.

Business Services:

1. A cost accounting system correlated with the budget should be established.
2. Modern business methods and equipment should be installed in the business office.
3. Purchasing procedures should be revised.

Household Activities:

1. The housekeeping work force should be enlarged.
2. Effective procedures in housekeeping and maintenance, including a preventive maintenance program should be established.
3. A complete program of plant protection should be developed.

Diagnostic Services:

1. A complete detailed study should be made of the laboratory.
2. There is a need for an increase of personnel in X-ray. Obsolete equipment should be replaced.
3. Effective controls should be established for pharmacy.
4. Additional positions are needed in medical records.
5. A central stenographic pool should be established for transcribing medical records.

Nursing Services:

1. The authorized number of nurses should be increased by approximately 20 per cent.
2. Labor-saving devices should be installed.
3. Floor stock standards for linens, drugs and sterile supplies should be established.
4. A messenger and delivery service should be established.
5. Training of nonprofessional personnel should be emphasized.
6. Consideration should be given to establishing patient admission wards.

Further Study

Further study should be made of the following:

1. Organization of the Department of Public Health.
2. The nurse education program at D. C. General Hospital. The possibility of utilizing the teaching resources at Wilson Teachers' and of expanding the education program at D. C. General Hospital to include paramedical functions should be considered.

(*Continued on page 164*)

On the Lighter Side

Spring is here! Well, anyway, the calendar specifically states that March 21, 1958 is the first day of it—and who are we to contradict the calendar in spite of the weather outdoors?

Warmer winds, summer dreams, sunnier skies, and rising temperatures will turn the thoughts of the average physician, like these same conditions do a young man's fancy, to thoughts of love. But in the former's case it is usually the love of the sea with the wind in his hair, a firm deck beneath his feet, and a rod in his hand, that stirs up the latent energy and fires up the old ambition.

Wives and women go in for frenzied house cleaning at this time of year; girls jump rope and boys shoot marbles and spin tops—but not the old man! He, more than likely, will get out of hiding his old fishing tackle and rods. He will clean out the tackle box, sharpen up the rusty hooks, oil his reels, unwind his matted lines, repair his nets, and flex and unflex his favorite rods.

If the time was available to the busy physician during the past cold months, he will have put his outboard motor in condition for quick use come the first warm, windless day on the Bay.

The boat that he owns must have extra good care plus a thorough spring cleaning. He will remember to pull off the tarpaulin in order to let that warm sun get to it for a few days to get out all the dampness of the winter. Then, on the first free weekend he will get to work. First, he will fill an ordinary galvanized bucket with warm water. Then he will snitch a teacup full of Mom's best detergent to stir into the water. And finally, after having found a stiff-fiber brush he will go to work scrubbing that old scow's hull and bottom with as much elbow-grease as he can muster after the long winter's lay-off. Rinsing will come next, and he will do it thoroughly, using bucketfuls of clean water, until there is no trace of the detergent left on the hull.

The second cleaning stage will follow the first, like gulls follow a ship. He will repeat the entire process on the inside, and, if necessary, he will hose off the detergent water in order to cleanse all the corners. His cleaning job is now half done and he is dog-tired; therefore, he will let the boat dry out in the sun a few more days before he tackles the painting.

Painting a boat is fun if you do it right and it is very satisfying. On his next free weekend the doc will scrutinize the surface of his boat from stem to stern looking for blistered paint and bare spots. These he will sandpaper with a vengeance. Now comes the daubing. He will use a good quality marine paint made especially for this purpose, and our sportsman-physician will follow the manufacturer's directions as to mixing, thinning and application. This way he can't go wrong.

He will dip his brush into the paint just far enough to get the bristles well soaked, but not so far that the paint will drip all over everything. He will cover the surface of the hull and bottom well and leave no laps. He may even get fancy and use two different colors, one for the hull and one for the bottom. But when the painting is done he will know that his boat's sides and bottom will be well protected from all the usual hazards of the water except puncture from hidden logs or dock-bruising from inexperienced handling when coming in to tie up.

This part of the job has just about used up the physician's free hours; therefore, he will allow his boat to stay bottom side up until the next week. In this way, the paint will dry thoroughly and he will be able to turn it over for the second phase of redecorating—the interior. Now the interior of his boat may have been varnished originally so he will refinish it with the same marine varnish. The job will hold up longer by acquiring extra coats of protection of the same finish, and it will look like new when completed. This is true of paint, also.

When the doc has completed the job he will get his boat down near or in the water so that he will be ready to hop into it at the first opportunity. There is no frustration like the frustration associated with trying to get your boat and gear into the water when you have to spend a couple of hours doing it when the fish are biting!

J. Earl Kadan, M.D.

News and Personals

MEETINGS

The Jacobi Society of Washington will hold its annual banquet on Saturday, March 22, at the Hotel Statler. The guest speaker for the dinner program will be the Honorable Harold Stassen, Disarmament Advisor to the President, who will speak on the subject, "Health and Peace."

The Thirty-first Annual Spring Congress in Ophthalmology, Otolaryngology and Allied Specialties, sponsored by the Gill Memorial Eye, Ear and Throat Hospital, of Roanoke, Virginia, will be held in Roanoke, April 14–19, at the Patrick Henry Hotel. Registration blanks and further information may be obtained by addressing Dr. E. G. Gill, Box 1789, Roanoke, Virginia.

Among the guest lecturers will be **Dr. James W. Watts,** President of the District Medical Society and Professor of Neurological Surgery at George Washington University School of Medicine, **and Dr. Lorenz E. Zimmerman,** Chief of the Section on Ophthalmic Pathology, Central Laboratory for Pathological Anatomy and Research, Armed Forces Institute of Pathology. They are scheduled to give three papers each, as follows: "Angiography in the Diagnosis of Lesions In and Around the Sella Turcica," "Intra and Parasella Tumors," and "Retrobulbar Lesions" by Dr. Watts, and "Some Observations on the Macroscopic and Microscopic Structures of the Vitreous and Its Retinal Detachments," "The Pathology and Prognosis of Melanotic Tumors of the Iris," and "Examples of Secondary Glaucoma with Open Anterior Chamber Angles" by Dr. Zimmerman.

The Washington Psychiatric Society has scheduled a meeting for April 25 in the Medical Society's building. Shirley A. Starr, Ph.D., of the National Opinion Research Center, University of Chicago, will be present to speak on "Public Attitudes toward Psychiatry."

The Sibley Hospital Alumni Association is sponsoring its first Alumni Day on May 15. Four papers, a CPC, and a panel discussion will constitute the scientific program.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia held its regular meeting on January 27, 1958. At the request of Mr. Richard M. Gaffney, Administrator of Hospital Service Agency, Inc., that 6 members of the Society be nominated in 1958 to its corporate membership, in accordance with the by-laws of the Agency, the Board voted that the incumbent appointees be reappointed. They are: Drs. William H. Beard, C. Willard Camalier, Jr., Oscar B. Hunter, Jr., Henry C. Macatee, Margaret M. Nicholson, and Frank S. Pellegrini.

Dr. Frederick O. Coe was nominated to succeed himself as Vice President of the Washington Academy of Sciences, representing the Medical Society.

The Board will propose to the Society that the following physician-Congressmen, who are presently serving in the 85th Congress, be elected to Honorary membership: Dr. Thomas E. Morgan and Dr. Ivor D. Fenton (Pennsylvania); Dr. Will E. Neal (West Virginia); Dr. A. L. Miller (Nebraska); Dr. Walter H. Judd (Minnesota); and Dr. A Feruos Iseru (Resident Commissioner from Puerto Rico).

The 1958 Easter Seal Campaign was approved by the Executive Board. This action was taken in response to a communication addressed to President

Watts by Mr. Frederick P. H. Siddons, President of the D. C. Society for Crippled Children, Inc.

President Dwight D. Eisenhower became an Honorary Fellow of the American College of Surgeons, February 6. The traditional cap and gown, symbolizing fellowship, were presented to him by a group representing the College which included the following physicians: Dr. Frank B. Berry, Assistant Secretary of Defense for Health and Medical Affairs; Major General Leonard D. Heaton, Commanding Officer of Walter Reed Army Hospital; Dr. Brian B. Blades, Chief of Surgery, George Washington University Hospital; Dr. John H. Lyons, Senior Consultant to the Department of Surgery of Emergency Hospital; and Dr. Isidor S. Ravdin, Professor of Surgery, University of Pennsylvania School of Medicine. Also present was Major General Howard M. Snyder, Personal Physician to the President. The physicians named, except Dr. Berry, were present during the ileitis operation on the President in June 1956. General Heaton performed the operation with the assistance of Dr. Ravdin, and Drs. Blades and Lyons were present as consultants. The latter two are Active members of the District Medical Society; Dr. Berry and General Snyder are Honorary members.

The Law Department of the American Medical Association offers a timely booklet for the use of physicians called "The Federal Income Tax Guide for Physicians," which answers some of their most perplexing tax problems. The booklet has been compiled from court decisions as well as rulings, regulations and publications of the Internal Revenue Service. It has been designed to give physicians a better understanding of their rights and obligations under Federal income tax laws. The Law Department staff does caution that the booklet is not a substitute for the services of a personal tax advisor. The material it contains is also scheduled to appear in the *Journal of the AMA*.

The General Practitioner Education Project, sponsored jointly by the American Psychiatric Association and the American Academy of General Practice, is interested in the development of postgraduate psychiatric education for the family physician. One of the services which is offered by the Project is a Speakers Bureau, which is prepared to offer names of psychiatrists who are willing to serve as guest lecturers while they are taking their vacation trips. Medical societies, hospitals, and other organizations or institutions which are interested in obtaining names of psychiatric speakers should write to the G. P. Project, American Psychiatric Association, 1785 Massachusetts Avenue, N.W., Washington 6, D. C.

Supplement I to "Survey of Compounds Which Have Been Tested for Carcinogenic Activity" is now available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at $3.50 per copy. The publication lists 981 compounds which were tested during the period 1948 through 1953. Data were collected and classified by Professor Philippe Shubik, of the Chicago Medical School, and Dr. Jonathan Hartwell, of the National Cancer Institute. Of the total number tested, 779 are reported for the first time in these tests.

About 100 business, professional and District Government leaders met to organize the **Washington Area Council on Alcoholism** at the Medical Society's building, February 11. The meeting was under the sponsorship of the American Bar Association's Special Committee on Improving the Administration of Justice. This Committee is headed by Judge Bolitha J. Laws, of the U. S. District Court for the District of Columbia.

Officers elected were: Attorney Frank S. Ketcham, Chairman; John P. Floyd, Secretary; and William M. Escavaille, Treasurer. Judge Laws was named Honorary Chairman, and Chief Judge Leonard P. Walsh, of the Municipal Court, and Edward G. Bliss, Honorary Vice Chairmen.

The Committee will be affiliated with the National Council on Alcoholism, Inc., which has chapters in 50 cities. Mrs. Marty Mann, Executive Director of the National Council, was present at the meeting. Commissioner David B. Karrick outlined the activities of the District Government to help alcoholics and the plans that are under way for expanding facilities for rehabilitation and treatment at the Health Department and the D. C. General Hospital.

The new Council hopes to coördinate treatment programs operating in the Washington Metropolitan Area and to assist in the development of more adequate programs for the future.

Dr. A. Truxton Morgan was appointed by the District Commissioners, February 11, to serve as **Tuberculosis Control Officer of the Public Health Department.** He succeeds Dr. Donald Sickler, who resigned in January. Dr. Morgan has been Deputy Chief of the Division of Preventable and Chronic Diseases since 1953.

Dr. John F. Nancarrow, of Chevy Chase, Maryland, has been appointed head of the Department of Hematology of the **Washington Hospital Center.** Dr. Nancarrow is a graduate of the University of Pennsylvania Medical School and was formerly head of the Hematology Department at the National Naval Medical Center. He plans to expand and develop the department to include diagnostic hematology and to institute a coagulation laboratory which will be the first of its kind in a voluntary hospital in this area.

George Washington University School of Medicine was the recipient in January of a check for $78,357, a grant from the National Foundation for Infantile Paralysis to the District Chapter, to be used to establish a respiratory and rehabilitation center at the Hospital. Mr. Robert Averill, District Chairman, presented the check to Dr. John L. Parks, Dean of the School of Medicine.

The Montgomery County Medical Society of Maryland has elected the following officers:

Dr. William T. Joyce, *President*; Dr. Henry P. Laughlin, *Vice President*; Dr. Henry W. Jaeger, *Secretary*; and Dr. Allen J. O'Neill, *Treasurer*.

Dr. Laughlin is an Associate member of the D. C. Medical Society.

Mr. Edward K. Funkhouser, Executive Secretary of the District of Columbia Tuberculosis Association, died unexpectedly, February 3, in Roanoke, Virginia. He was well known to Washington physicians through his position as administrative head of the Tuberculosis Association.

Mr. Funkhouser, a native of Harrisonburg, Virginia, was a graduate of Virginia Polytechnic Institute. He came to Washington in 1943 from Passaic, New Jersey, where he had served as Executive Secretary of the Passaic County Tuberculosis and Health Association for 18 years. He developed the Metropolitan Washington Tuberculosis Conference, which has served as a forum for discussion of local problems in the field. He also founded the District of Columbia Trudeau Society.

He is survived by his wife, Mrs. Lesley Waterman Funkhouser, of 2761 North Quincy Street, Arlington, Va., and two sons, Edward K. Funkhouser, Jr., of Montclair, N. J., and John T. Funkhouser, of Kennett Square, Pa.

PERSONALS

Dr. Peter D. Comanduras, Associate Clinical Professor of Medicine, George Washington University School of Medicine, has been on a world tour in the interests of organizing a relief organization to be known as MEDICO. The full name of the organization is Medical International Coöperation, and is sponsored by the International Rescue Committee. MEDICO plans to send teams of physicians and medically trained assistants to underdeveloped countries.

After a visit to Dr. Albert Schweitzer at Lambarene in French Equatorial Africa, site of the Schweitzer Hospital, Dr. Comanduras cabled that the famous physician had accepted honorary membership on the Medical Advisory Council of MEDICO. Dr. Comanduras is Secretary-General of the organization, which came into being, February 4.

Dr. Roy Hertz, Chief of the Endocrinology Branch, National Cancer Institute, was cited for outstanding accomplishments in the field of cancer research by the District Federation of Women's Clubs, February 8, at its 64th Anniversary Luncheon at the Shoreham Hotel. Ten men and women, representing various professions and diverse activities, were given Awards of Merit by Mrs. McCall Imes, President of the Federation. Dr. James Shannon, Director of the National Institutes of Health, accepted the award for Dr. Hertz.

Several members of the Board of Trustees of the District of Columbia Division, American Cancer Society, have been named to posts with the national organization. **Dr. Calvin T. Klopp,** President of the D. C. Society, has been appointed Vice Chairman of the Medical Social Work Advisory Committee and to membership on the Service Committee on New and Unproved Methods of Treatment. Recently he was reëlected for a third term on the national Board of Directors of the Society.

Dr. Murray M. Copeland, Cancer Coördinator at Georgetown University and a newly elected member of the national Board, has been appointed a member of the Medical and Scientific Executive Committee and Vice Chairman of the Society's Clinical Fellowship Committee.

Dr. Peter D. Comanduras has been named professional delegate from the District of Columbia to Region II of the American Cancer Society.

A memorial stained glass window in memory of **Dr. and Mrs. Aurelius Rives Shands** was dedicated, February 9, at the Episcopal Church of the Epiphany. Dr. Shands served for more than 40 years as a vestryman of the Church and 8 of those years as its Senior Warden. When he died, April 27, 1941, he was a Life member of the D. C. Medical Society. He had served as Professor of Orthopedic Surgery at George Washington University School of Medicine for 38 years.

The window, which is located in the south wall of the Church's east transept, is a gift of their four children: Mr. Richard E. Shands and Miss Agnes H. Shands, both of Washington; Dr. A. R. Shands, Jr., of Wilmington, Del.; and Mr. George K. Shands, of Narrows, Va.

Dr. Robert H. Harmon, Director of the Traveling Troubadours, George Washington University's glee club, received a Certificate of Merit, February 12, from the Lafayette Square United Service Organizations.

Colonel L. W. Jackson, Chief of the Special Services Division in the Army Adjutant General's Office, presented a USO Certificate of Merit to the group. Dr. Harmon received his certificate from Vice Admiral Leland P. Lovette, USN (Ret.), member of the operating board of the Lafayette Square USO.

Rear Admiral Bartholomew W. Hogan, Surgeon General of the Navy, has been elected President of the Army and Navy Club. Admiral Hogan is an Honorary member of the District Medical Society.

Dr. Marcus H. Burton, Associate member of the D. C. Medical Society, has been named President of the University Club of Washington.

Drs. Robert F. Costello and Joseph A. Dugan were recently elected to the Board of Trustees of the Catholic Youth Organization of Washington.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Mental Robots. L. A. ALESEN, M.D., Past President, Los Angeles County Medical Association and California Medical Association; immediate past Chief of Staff, Los Angeles County General Hospital. Price, paper, $1.50. Pp. 107. Caldwell, Idaho: Caxton Printers, 1957.

Office Gastroenterology. ALBERT F. R. ANDRESEN, M.D., Clinical Professor Emeritus of Medicine, State University of New York College of Medicine at New York City; Attending Physician, Long Island College Hospital; Area Consultant in Gastroenterology, Veterans Administration. Price, $14.00. Pp. 707, with 110 illustrations. Philadelphia: Saunders, 1958.

Drugs—Their Nature, Action and Use. HARRY BECKMAN, M.D., Director, Departments of Pharmacology, Marquette University Schools of Medicine and Dentistry; Consulting Physician, Milwaukee County General Hospital and Columbia Hospital. Price, $15.00. Pp. 728, with 126 illustrations. Philadelphia: Saunders, 1958.

Clinical Heart Disease. SAMUEL A. LEVINE, M.D., F.A.C.P., Clinical Professor of Medicine, Harvard Medical School; Physician, the Peter Bent Brigham

Hospital, Boston; Consultant Cardiologist, Newton-Wellesley Hospital; Physician, New England Baptist Hospital. Price, $9.50. Pp. 673, with 216 illustrations. Philadelphia: Saunders, 1958.

Aids to Ophthalmology, 11th ed. P. McG. Moffatt, M.D. (Lond.), M.R.C.P., F.R.C.S. (Eng.), D.O.M.S., Consultant Ophthalmic Surgeon and Lecturer, Moorfields Eye Hospital; Hammersmith, West London and St. Mark's Hospital Groups; Lecturer, Post-Graduate Medical School; recognized teacher of the London University; Senior Ophthalmic Consultant and Adviser, London County Council Central Medical Staff. Price, $3.00. Pp. 282. London: Baillière, Tindall and Cox, 1957; Baltimore: Williams & Wilkins, exclusive U. S. agents.

Gynecologic and Obstetric Pathology with Clinical and Endocrine Relations, 4th ed. Emil Novak, A.B., M.D., D.Sc. (Hon., Trinity College, Dublin; Tulane), F.A.C.S., F.R.C.O.G. (Hon.), Late Assistant Professor Emeritus of Gynecology, The Johns Hopkins Medical School; Gynecologist, Bon Secours and St. Agnes Hospitals, Baltimore; Fellow and Past President, American Gynecological Society, and Edmund R. Novak, A.B., M.D., Assistant Professor of Gynecology, The Johns Hopkins Medical School; Gynecologist, Johns Hopkins, Bon Secours, Hospital for the Women of Maryland, and Union Memorial Hospitals, Baltimore, Maryland. Price, $14.00. Pp. 560, with 683 illustrations, 25 in color. Philadelphia: Saunders, 1958.

Steps for Today toward Better Mental Health. Report of the 1957 National Health Forum conducted by the National Health Council, March 20, 21, 22, Cincinnati, Ohio. Pp. 118. New York: National Health Council, 1957.

A Textbook of Clinical Neurology, with an Introduction to the History of Neurology, 8th ed. Israel S. Wechsler, M.D., Consulting Neurologist, The Mount Sinai Hospital, New York. Price, $11.00. Pp. 782, with 179 illustrations. Philadelphia: Saunders, 1958.

The Relation of Psychiatry to Pharmacology. Published for the American Society for Pharmacology and Experimental Therapeutics. Abraham Wikler, M.D., National Institute of Mental Health, Addiction Research Center, Department of Health, Education, and Welfare, Public Health Service Hospital, Lexington, Kentucky. Price, paper, $4.00. Pp. 322. Baltimore: Williams & Wilkins, 1957.

Healthful School Living. A Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association with the coöperation of contributors and consultants. Editor: Charles C. Wilson, M.D., Professor of Education and Public Health, Yale University. Price, $5.00. Pp. 323, illustrated. Washington: National Education Association; Chicago: American Medical Association, 1957.

Ciba Foundation Colloquia on Endocrinology. Volume XI. Hormones in Blood. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Elaine C. P. Millar, A.H.-W.C., A.R.I.C., Editors for the Ciba Foundation. Price, $9.00. Pp. 416, with 74 illustrations. Boston: Little, 1957.

Ciba Foundation Symposium on Drug Re stance in Micro-Organisms. Mechanisms of Develsipment. G. E. W. Wolstenholme, O.B.E., M.A., M.B.o B.Ch., and Cecilia M. O'Connor, B.Sc., Editors for t,he Ciba Foundation. Price, $9.00. Pp. 352, with 62 illustrations. Boston: Little, 1957.

EARLE GRIFFITH BREEDING, A.B., M.Sc., M.D., F.A.C.S.

(1888–1958)

Dr. Earle G. Breeding, well known Washington ear, nose and throat specialist, died, January 16, at Doctors Hospital. He had retired last June after a career of 40 years. His offices for many years were in the Washington Medical Building.

Dr. Breeding was born in Caroline County, Maryland, February 14, 1888, the son of William R. and Cora G. Breeding. He received his early education in Federalsburg, Maryland, graduating from its high school. From Washington College, Chestertown, Md., he received two degrees, A.B. (1909) and M.Sc. (1913).

In 1913 Dr. Breeding graduated in medicine from the University of Maryland. He interned at the University of Maryland Hospital in Baltimore following graduation and also at the James Walker Memorial Hospital in Wilmington, North Carolina. From 1916 to 1917 he was resident physician at the Episcopal Eye, Ear and Throat Hospital in Washington.

With the advent of World War I at this time, he enlisted in the Medical Corps of the Army, was commissioned Captain, and was on duty for two years at Walter Reed Army Hospital.

In 1928 he interrupted his private practice to go abroad for postgraduate study at Vienna in otolaryngology. After returning to Washington he became Chief of Staff at Episcopal Hospital and for many years was executive surgeon of the nose and throat department. At the time of his death he was emeritus member of its staff and of the new Washington Hospital Center. He was also a member of the Board of Corporators of the Episcopal Hospital.

In the early 1930's he was Professor of Otolaryngology at George Washington University School of Medicine.

Dr. Breeding was a diplomate of the American Board of Otolaryngology. He was a Fellow of the American College of Surgeons, member and past President of the Washington Medical and Surgical Society, and a member of the American Medical Association, the Southern Medical Association, and the American Academy of Ophthalmology and Otolaryngology. He had been an Active member of the Medical Society of the District of Columbia since 1921 and had served as Chairman of its Section on Otolaryngology. He was a life member of the Military Order of the World Wars.

He is survived by his wife, Mrs. Lynne Albaugh Breeding, residing at their home in the Westchester Apartments; a son, Earle G. Breeding, Jr., of Long Beach, Calif.; and two daughters, Mrs. Robert A. Owens, of Sacramento, Calif., and Mrs. Charles McDonnell, of Rye, N. Y. He also leaves a brother, W. Ford Breeding, of Seaford, Del.

ELIZABETH SOHON, M.D., LL.B., M.P.L., LL.M.

(1878–1958)

Dr. Elizabeth Sohon, one of the early women doctors in the District of Columbia, died, February 1, 1958, at Doctors Hospital. She was a Life member of the District Medical Society.

Dr. Sohon was a Washingtonian, born, March 18, 1878, to Gustavus and Julia Groh Sohon. She attended the public schools of Washington, graduating from old Central High School.

In the early 1900's only Howard University School of Medicine was open to women, and Dr. Sohon graduated from Howard in 1908; she interned at New England Hospital for Women and Children in Boston the following year. Beginning in 1909, she practiced continuously in Washington for 40 years. Her offices were last located at 1746 K Street, N.W.

Becoming interested in the study of law, she enrolled at Columbus University School of Law in Washington, from which institution she received three degrees, Bachelor of Laws (1929), Master of Parliamentary Law, and Master of Laws, the latter two in 1930.

Dr. Sohon was elected to Active membership in the District of Columbia Medical Society in 1910 and became a Life member in 1951. She was also a member of the American Medical Association and the Women's Medical Society of D. C. She took an active role in the Soroptimist Club, having served as Vice President and on its Board of Directors.

She is survived by eight nephews and nieces, including the Reverend W. Sohon, of Georgetown University, and Attorney Julian T. Cromelin, of 3119 Rittenhouse Street, N.W., Washington, D. C.

Report of Executive Board

(*Continued from page 147*)

signify their approval by attendance.

Conclusion. This concludes the Board's second Interim Report during the current organization year. Unless there is urgent reason for doing so, a special business meeting of the Society will not be scheduled prior to the next regular business meeting.

You will shortly receive the program for the Seventh Midwinter Seminar. It promises to be one of the most interesting and stimulating meetings to date. For this reason it is expected attendance will exceed that of any previous Seminar.

Plans are already being made for the 27th ANNUAL SCIENTIFIC ASSEMBLY to be held at the Hotel Statler, November 24, 25, and 26, 1958.

A final word to you who have not visited the restored building next door. The Board hopes that you will take time out to see what has been done with this property. It should please you.

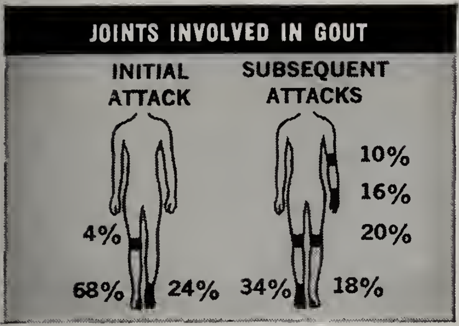
Respectfully submitted,
HERBERT P. RAMSEY, M.D., *Chairman*
RALPH M. CAULK, M.D.
W. LEROY DUNN, M.D.
RAYMOND T. HOLDEN, M.D.
PRESTON A. MCLENDON, M.D.
W. ROSS MORRIS, M.D.
JAMES W. WATTS, M.D.
THEODORE WIPRUD, *Secretary*

Survey of D. C. Hospital Facilities

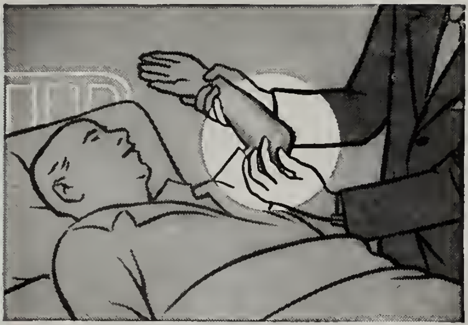
(*Continued from page 156*)

CONCLUSIONS

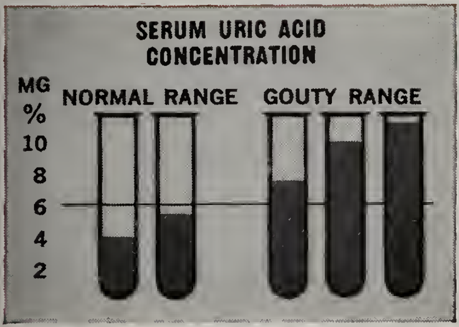
Implementation of the recommendations contained in this report will provide for the District of Columbia a modern, efficient, and progressive health and hospital program. It will be a system that can be used as a demonstration to other municipalities in the Nation—a system that will be a credit to the leadership that should be a major role of the national capital.



1. Recurrent joint pain followed by long periods of complete remission. *(Percentages refer to incidence.)*



2. Enlargement of bursae such as in this case involving the olecranon bursa.



3. Elevated serum uric acid levels.

4. Colchicine test: full dose (0.5 mg.) every 1 to 2 hours until pain is relieved or nausea, vomiting or diarrhea occur. The test requires usually 8 to 16 doses. Pain relief is highly indicative of gout.

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A SPECIFIC FOR GOUT

Once findings point to gout, long-term management can be started with BENEMID. This effective uricosuric agent has these unique benefits:

- Urinary excretion of uric acid is approximately doubled.
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- Uric acid deposits (tophi) in tissues are mobilized.
- Formation of new tophi can often be prevented.
- Fewer attacks and severity is reduced.

RECOMMENDED DOSAGE: 0.25 Gm. (½ tablet) twice daily for one week followed by 1 Gm. (2 tablets) daily in divided doses.

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Book Reviews

Cellular Biology, Nucleic Acids and Viruses. Volume V, Special Publications of the New York Academy of Sciences. Pp. 414. New York: New York Academy of Sciences, 1957.

This monograph, which is dedicated to Basil O'Connor on his sixty-fifth birthday, is a collection of papers summarizing certain very live scientific subjects under each of four headings: (1) Poliomyelitis; (2) Nucleic acids; (3) Properties acquired by cells maintained in continuous culture; (4) Role of tissue cultures in the isolation and study of viruses. The viewpoint ranges from that of the basic cellular biologist to the epidemiologist to the clinician, and the result is a recorded symposium that should serve to bring each closer to a common goal. The volume provides an excellent reference source for anyone interested in certain of the mentioned topics since many of the papers are virtually monographs in themselves. For example:

1. A biography of poliomyelitis, by T. E. Boyd, is as succinct and well-referenced a chronology of events leading up to the control of poliomyelitis as one could ask for.
2. Properties of attenuated polioviruses and their behavior in human beings, by Albert B. Sabin, is a careful presentation of data supporting the hypothesis that live poliovirus vaccination is feasible.
3. A series of papers on the structure and biosynthesis of nucleic acids and their role in virus infectivity presents among other things evidence to indicate that the isolated nucleic acid of tobacco mosaic virus is infective in itself.
4. In several papers on tissue culture cells in continuous culture, data are presented to show that: (a) Certain cells undergo a change in their nutrient requirements; (b) altered cells appear in certain culture populations and these may be propagated continuously without reverting to the parent type.
5. Several more clinically oriented papers touch on the ECHO and adenovirus groups and discuss the potentials for vaccination against the latter.

The authors are all well known; most of the papers present reasonably mature work; comments of discuse sants are recorded. This volume belongs in any reference library and is well worth the perusal at least for an evening of a physician with even the slightest curiosity about the ongoing struggle between cells and viruses.

Robert H. Parott, M.D.

From Sterility to Fertility. A Guide to the Causes and Cure of Childlessness. Elliot E. Philipp, M.A., M.B., B.Chir., F.R.C.S., M.R.C.O.G. Price, $4.75. Pp. 120. New York: Philos. Libr., 1957.

The title of this 120-page book is misleading. It would be more forthright to use the word "management" instead of "cure." The author admits that perhaps 40 per cent of the patients who consult "infertility experts" achieve pregnancy, and that "after two years trying with the help of specialist advice it is better to give up trying." The author also devotes a chapter to adoption, which method is indeed a direct solution of childlessness but not sterility.

These are hardly examples of a cure.

The book was written for childless couples and not for the medical profession. The purpose is to inform the everyday public of all the factors which might be responsible for infertility, and to have them realize "that having a baby is a chancy business, that the help of an expert can perhaps increase the chances in the right direction and that help should be sought early."

Its style, although wordy in places, combines humor, witticism and philosophy, plus an illustrated technical outline for the complete study and treatment of those who seek help for sterility.

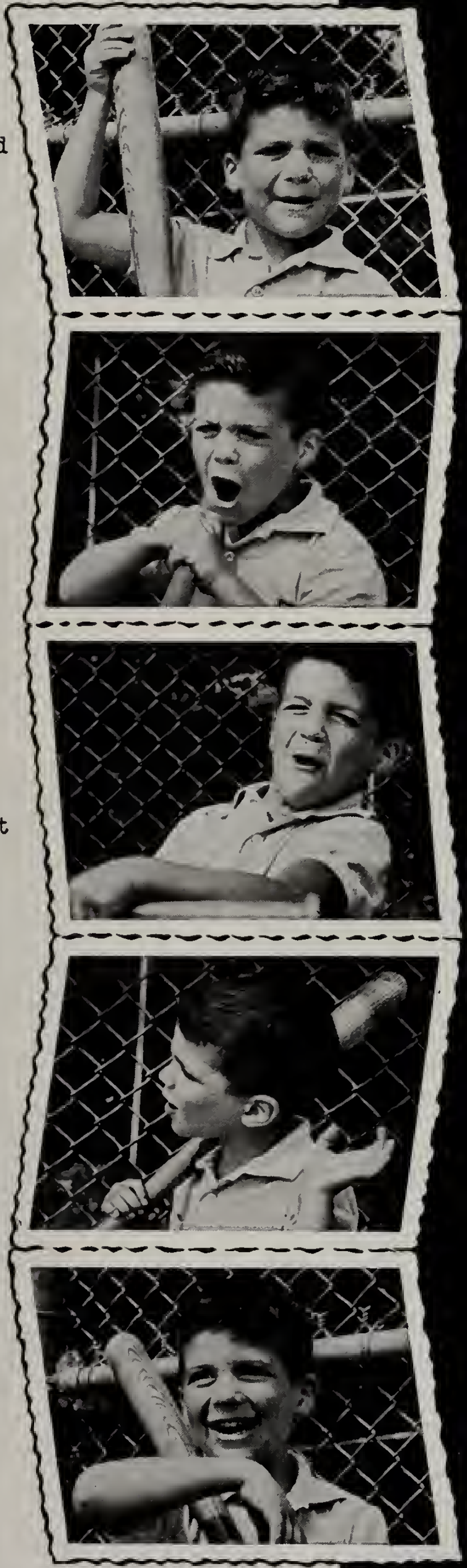
The commonly accepted methods of investigation known to every qualified gynecologist are explained in detail, but treatment is mentioned in somewhat broader terms. However, for tubal obstructions which occur at the cornual ends "as a result of abortion or difficulty in removing the afterbirth after delivery of a baby," reimplantation of the tubes with the aid of polyethylene rods is mentioned as a very promising operation. With no substantiation in his bibliography of 16 references, the author claims that "in the best surgeons' hands something like half the cases are resulting in pregnancies, and an appreciable number of these pregnancies have resulted in live babies"!

I was interested in the interpretations which Mr. Philipp made of "The Registrar General's Statistical Review of England and Wales for the Year 1953," Part II, devoted entirely to the Fertility of Women. He noted that among 73,000 women who died in that year and whose family state was known, 13,000 of them died without having had any child by any husband. One in every 6 women, therefore, failed to have a baby at all throughout the whole of her married life, no matter how long she was married.

The author also reveals another interesting aspect of what he calls "this statistical business": There were over a quarter of a million first babies born to married women in 1953 but 1 in every 5 of these was conceived before the couple married. This, he feels, still further reduces the proportion of women who conceive after marriage, and although "it is not necessarily easier to conceive

(*Continued on page 58*)

MY DAD— HE HURT HIS BACK REAL BAD



"It happened at work while he was putting oil in something"

"He told Mom his shoulder felt like it was on fire"

"He couldn't swing a bat without hurting"

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"Dad said we'd play ball again tomorrow when he comes home"

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Book Reviews

(*Continued from page 56*)

before marriage (but) it is easier to conceive when young and most girls who 'slip-up' are young."

To quote further: "Every gynaecologist is aware that many first pregnancies result in miscarriage because the womb does not seem to be able to respond quickly enough, and to grow as fast as the baby grows. In other words, the baby becomes too big for its home and has to be pushed out. Younger women have more supple muscles which grow more easily to accommodate the baby."

Every American gynecologist would not agree with this, for we are aware that faulty germ plasm and increased capillary permeability are the reasons that most spontaneous miscarriages occur.

The author expects his book to save the doctor from very lengthy explanations to his patients concerning the studies he proposes to make and the reasons for them. This reviewer feels that to give a patient a detailed semi-technical book on the diagnosis and treatment of her barrenness is a confounding substitute for personal consultations with her and her husband. Perhaps in a large gynecologic department of a general hospital in the British Isles there may be a place for this method of information. The National Health Service under The Welfare State seems to be very energetic about its aid and encouragement of the establishment of infertility clinics in any of its hospitals wherever a gynecologist is interested in starting one. When the patient load becomes heavy in these clinics the consultant's time will be taxed, and such a book as this may perhaps spare his time and voice. But, I do not know how many copies will be purchased at the English pound equivalent of $4.75. Maybe they will be distributed free as part of the National Health Service.

Samuel Mayer Dodek, M.D.

Transactions of the Annual Meeting of the American Society for Artificial Internal Organs, Chicago, Illinois, April 14–15, 1957. Volume III. Printed by the Georgetown University Printing Department for the American Society for Artificial Internal Organs. Pp. 96.

This is a series of 22 papers covering the artificial kidneys, various oxygenators, and technics concerned with maintaining life by artificial means. The publication of such a collection of papers makes available to all physicians the proceedings of a highly specialized group. It would be well if other organizations attempted to do the same thing. The papers are fairly restricted in their scope and many are preliminary reports based on experience with only a few patients. It would probably be better for the reader if comments such as "slide 2" or "lights" were omitted and figures inserted as close to the text as possible. While this would require more editing, it would make for smoother reading.

A. E. Parrish, M.D.

TAKE A LOOK AT
NEW DIMETANE
THE UNEXCELLED
ANTIHISTAMINE

MEDICAL ANNALS
of the
DISTRICT OF COLUMBIA

VOLUME XXVII *April,* 1958 NUMBER 4

WHAT OUR TIMES DEMAND OF THE PHYSICIAN*

ELMER HESS, M.D., F.A.C.S.

Chairman, Health Resources Advisory Committee, Office of Defense Mobilization; Past President, American Medical Association

WE ARE LIVING in an entirely different world than the one previous to 1940. Many changes have taken place, both in the way we live in the United States and the relationships that we have with the world at large. Two ways of life developed as a result of the Second World War—one, a materialistic concept in which the state is supreme and with a leveling of all classes of society; the other has liberty for the individual, with government as of secondary importance and private enterprise as the machinery to provide the better life for all, plus the belief that spiritual values are of more importance than pure materialism. Even in our world, however, private enterprise has been taxed and so controlled that permanent changes have altered our way of life, perhaps because of necessity. As we have grown in numbers and in strength we have been forced into world leadership, and this all carries with it some restrictions upon our personal liberties if we would survive. Let us then look backward for a moment and see what has happened to the life of the American physician.

When I was a young man, the candidate for the Medical School simply presented himself with letters of recommendation to the Dean. A high school diploma, in most instances, was enough. I know of several brilliant physicians in my age group who never graduated from high school. A few boys had gone to college 2 years, a few had a college degree. We were advised to take an internship or a residency, but this was not necessary in order to take the State Board examinations and practice medicine.

Today, the young man or woman seeking a medical education must have a degree from college. He must be screened by the Admissions Committee of the Medical School after having taken a medical aptitude test. He must be a splendid student and at least in the majority of cases, have a B+ or an A average in the basic sciences. If admitted to Medical School, he can no longer be a member of the University's athletic teams (most of the athletic stars in my day were medical students). He must maintain good grades through Medical School. In many states after graduation he must serve a rotating internship before he is eligible to take his examinations for practice. If he would be a specialist, he must spend another 3 to 5 years preparing for his Boards, and he is usually 30 years of age or better before he is able to earn a living. I'm afraid that I would not have made the grade if those had been the conditions prevalent when I decided to try to become a physician.

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* Address delivered at the Opening Day Luncheon, October 14, 1957, during the 26th Annual Scientific Assembly of the Medical Society of the District of Columbia.

Medicine was a pure profession a few years ago. We took care of sick folks—no questions asked. We were paid for a relatively small percentage of our rendered services. Today, it is a profession with definite business overtones that did not exist at one time. Reform and socialization then reared their ugly heads, particularly during the depression, and the profession through no fault of its own found it was fighting a losing battle with the social reformers. Socialized Medicine almost became the law of the land. The physicians, so busy taking care of sick folks that they had had no time for politics, suddenly realized that their whole professional life was threatened. Like drowning men they grasped at straws. Blue Shield was the only strong straw. In the late 30's this, the physicians' insurance program, was accepted by the people of the country as a substitute for Federal control. We had won a victory—but as always victories cost something. This one cost us the completeness of our professional standing. The insurance principle made us at least conscious of the business aspects of the profession. One nice thing about the program was the fact that we were still able to base our fees on the basis of the patient's ability to pay. Because of insurance, we also found that many people who had previously been poor pay or free cases now were able to pay a fair fee. This also put a great many more dollars in our pockets. It just seemed that we could no longer divorce business from our professional lives. The demands of the times did influence us for better or for worse. This I do know, that unless a man is decent in his heart, all the codes of professional or business ethics are worthless. I still believe that we are primarily professional people.

We were obliged to consider again the mechanics of medical practice. We could work as salaried personnel, as solo practitioners, or in coöperative medical groups. As long as we gave quality medical service to the people, the type of practice we chose was our own affair, and the training we were willing to undergo often decided for us how and where we would practice.

We have learned in the past dozen years that we can no longer go about simply doing good. We were obliged, in our efforts to give the public the best medical service, to take an interest in those who represented us in all phases of government. We had learned the hard way that physicians were also citizens and as such received the kind of government that they deserved. We found that we had a powerful weapon—the vote. We found out how to use it, and we will use it, never for personal advantage but always, I hope, to the best medical interests of our people.

This then demands our activity, not only in the body politic as a whole, but in our County Medical Societies. Here we have a real voice, or should have. Here we can express our views, debate the issues with our confreres, and conclude by majority vote how we shall act. Here we elect our representatives to the State Societies and the National Association (the AMA). When I was President of the national organization, I received and answered many letters complaining about actions of the parent body. Many of these letters come to mind as I speak to you today. How often I've written an answer to a particularly vitriolic note saying, "If you have presented your opinion before your County Medical Society, you have a right to communicate with me and criticize any action taken. If you have not, then you have no right to so do." Then I would usually ask, "How often do you attend your County Society's meetings?" You would be surprised to know how few men who have written in protestation have admitted to ever attending their County Society's meetings, let alone taking any active part in the deliberations.

Teacher, salaried physician, industrial physi-

(*Continued on page 219*)

THE CAUSES AND PREVENTION OF FETAL AND NEONATAL DISTRESS (PERINATAL DISTRESS)*

A Panel Discussion

GEORGE W. ANDERSON, M.D.
Baltimore

PETE COMMINGS, M.D., F.A.C.S.
SEYMOUR ALPERT, M.D.
FREDERIC G. BURKE, M.D.
JOHN A. WASHINGTON, M.D.
GEORGE MAKSIM, M.D.
Washington

INTRODUCTION, ORIENTATION, DEFINITION AND PATHOLOGY OF FETAL AND NEONATAL DISTRESS

GEORGE W. ANDERSON, M.D.
Assistant Professor of Obstetrics, Johns Hopkins University School of Medicine

In this panel discussion on the causes and prevention of fetal and neonatal distress we shall try to summarize current knowledge on the subject. In addition, questions will be propounded which may aid in the accumulation of future knowledge. After orientation and definitions I shall describe various chemical and pathologic mechanisms, with emphasis on oxygenation, which are important in intra-uterine adaptation. The relationship between fetal and neonatal mortality (perinatal mortality) and the neuropsychiatric sequelae (perinatal morbidity) due to distress will be emphasized. My colleagues on the panel will continue the discussion on specific obstetrical and pediatric aspects of fetal and neonatal distress. Although many of the causes of fetal or neonatal distress are similar, extra-uterine adaptation presents the specific problem of neonatal respiratory distress and methods of resuscitation. Specific types of neonatal distress, such as iso-immunization, kernicterus and prematurity, will be presented by members of the panel. This broad subject should provoke numerous queries for the question-and-answer period.

The dictionary defines distress as a condition of straining, forcing, pain or suffering, misfortune, or a state of danger. In general, obstetrical textbooks devote only one or two paragraphs to the subject of fetal distress. For instance, Eastman's definition[1] of fetal distress is as follows:

1. Condition in which fetal heart rate does not return to normal within 30 seconds after the end of a contraction.
2. Fetal heart rate remains below 100 per minute throughout the interval between contractions.

Other clinical features which the obstetricians have associated with distress are increased or decreased fetal movement and the passage of meconium with vertex presentations. Importance is attached to the occurrence of these signs as to time of onset before labor or during labor. At the present, however, the fetal heart rate is being reëvaluated with electrophysiologic technics, and a broader definition of fetal distress may be the result. The present definition of fetal distress covers only the labor period. The fetus and newborn are subjected to numerous types of stress and adverse influences early and late in the perinatal period. A partial list of the factors capable of producing distress in the fetus are as follows:

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* Presented, October 15, 1957, during the 26th Annual Scientific Assembly of the Medical Society of the District of Columbia.

1. Infection (viral and bacterial)
2. Immunologic (antigen-antibody) reactions
3. Radiation (therapeutic and diagnostic X-ray and radium-nuclear)
4. Endocrine
5. Chemical factors (oxygenation, nutrition, metabolic effects, fluid and electrolytes, enzymes, etc.)
6. Physical factors (circulation)
7. Psychosomatic factors.

As diagnostic tests and measurements of the above list improve and develop, the definition of fetal distress will have to include these factors also.

Neonatal distress has had very little specific meaning in the past. Some investigators include a conglomeration of types, such as respiratory distress, circulatory distress, and premature distress, under this category. A working definition of neonatal distress could be as follows:

1. Neonatal distress is any observed alteration in the physiology of the neonate.
2. At the present time these alterations include:
    a. Respiratory distress
    b. Circulatory distress (anoxia)
    c. Distress due to infection, iso-immunization, malformations, etc.
    d. Premature distress.

In the future, fetal and neonatal distress may be included under the inclusive term of perinatal distress. Table 1 illustrates a suggested tentative classification of perinatal distress.

The most distressful injury to the fetus or neonate would be death itself, but equally distressful would be sublethal injury producing brain damage. Therefore, the adverse affects of fetal and neonatal distress can be expressed in the following groups:

1. Fetal and neonatal deaths (perinatal mortality) due to anoxia, birth injury, respiratory difficulty, malformation, infection, erythroblastosis, etc.
2. Sublethal injury (perinatal morbidity)
    a. Brain damage resulting in:
        Cerebral palsy
        Mental retardation
        Epilepsy
        Blindness
        Deafness
        Behavior disorders
    b. Other organ injury.

TABLE 1

Proposed Definition of Perinatal Distress

Perinatal distress is any observed alteration in the physiology of the fetus or neonate leading to sublethal injury or death. It also includes:

A. Definition of Fetal Distress
  1. Fetal distress is any observed alteration in the physiology of the fetus.
  2. At the present time these changes include:
    a. Alterations of heart rate
    b. Presence of meconium in the amniotic fluid
    c. Increased fetal movements
  3. Future changes: Measurements of adverse affects of infection, immunologic reaction, radiation, endocrines, chemicals, physical and psychosomatic factors.

B. Definition of Neonatal Distress
  1. Neonatal distress is any observed alteration in the physiology of the neonate.
  2. At the present time these alterations include:
    a. Respiratory distress
    b. Circulatory distress (anoxia)
    c. Distress due to infection, iso-immunization, malformations, etc.
    d. Premature distress
  3. Future changes: Measurement of adverse affects of infection, immunologic reaction, radiation, endocrines, chemicals, physical and psychosomatic factors.

Recent surveys have shown that obstetrical factors related to fetal and neonatal mortality are also related to perinatal morbidity. Therefore, the causes of perinatal distress parallel the causes of perinatal mortality. The primary causes for alterations of the fetal heart rate are abruptio of the placenta, placenta previa, prolapsed cord and other cord complications, and rapid labor and descent of the fetal head, and occasionally with Pitocin stimulation. The incidence of fetal distress varies considerably in the literature. Clinics have reported that from 1.5 to 22.8 per cent of their deliveries have had significant alterations of the fetal heart rate. As shown in table 2, the specific causes of perinatal deaths are anoxia, no abnormal state, birth injury, malformation, abnormal pulmonary ventilation, infection, erythroblastosis, and other conditions or causes. When the fetus is delivered, the respiratory problems and the problems of birth injury increase in importance as causes of both neonatal mortality and neonatal distress.

TABLE 2

Pathologic Classification of Perinatal Deaths

Johns Hopkins Hospital (1937–1949)

Cause of death	Fetal Deaths	Neonatal Deaths	Perinatal Deaths	
			No.	Per cent
Anoxia	249	102	351	33.7
No abnormal state	228	106	334	32.0
Birth injury	24	78	102	9.8
Malformation	42	56	98	9.4
Abnormal pulmonary ventilation	0	74	74	7.1
Infection	10	48	58	5.6
Erythroblastosis	6	11	17	1.6
Other conditions or causes	8	1	9	0.8
TOTAL	567	476	1,043	100.0

Gruenwald[2] places all common pathologic lesions of newborns under the term "perinatal distress syndrome" with the exception of birth injury, malformation, intra-uterine infection and erythroblastosis. The basic pathologic lesions of the fetus and newborn referable to distress have been described by Gruenwald and many other pathologists as edema, petechiae, dilatation of the heart, necrosis in arteries, aspiration of amniotic sac contents, bronchopneumonia, degeneration of liver cells, pancreatic lesions, adrenal hemorrhage and necrosis, severe hyperemia of the internal genitalia, digestive tract ulcerations, and focal petechial hemorrhages in the brain and meninges. These lesions imply that newborn infants are in distress or in shock. On the basis of his findings, Gruenwald suggested that pediatricians consider the possibility of treating newborn infants for shock as well as insufficiency of the heart, liver, and adrenal cortex, in addition to supplying oxygen. This point of view relates the pathology of fetal and neonatal distress intimately to the morphologic changes associated with shock.

In table 3 an estimate of the reproductive failure in the United States in which fetal and neonatal distress plays a role is illustrated. To state this problem based on estimates for the current year, out of approximately 4,000,000 births expected, 1.58 per cent, or 63,000 babies, will continue to be a medical and social problem for care and rehabilitation for years to come. In addition one can anticipate 820,000 nonviable reproductive failures in the same year. Therefore, in the United States during 1957 we can expect 883,200 reproductive failures, a good

TABLE 3

Estimate of Scope of Pathology of Human Reproductive Failure

U. S. Vital Statistics (1950)

Immediate Problem:	
Deaths in first 28 days of life	72,855
Fetal deaths	68,262
Spontaneous abortions (10 per cent)	362,241
Criminal abortions (6 per cent)	217,344
Ectopic pregnancies	22,640
Aftermath or "Continuum":	
Cerebral palsy	21,369
Epilepsy	7,244
Mental retardation	18,110
Blindness	822
Deafness	5,000
Cleft palate and cleft lip	4,708
Congenital hip and heart disease	?
Facial asymmetry (Boder)	—
TOTAL	800,595
Total births in the United States in 1950	3,622,411

portion of which are the direct result of fetal and neonatal distress.

It would be impossible to discuss all of the various environmental situations in which fetal distress occurs. During this discussion comments will be limited to fetuses and neonates over 1,000 grams in weight. No attempt will be made to describe all of the metabolic affects of endocrines, ionizing radiations, viruses and bacteria, as well as other specific etiologic agents which are capable of producing distress. An arbitrary selection of the late prenatal and natal events regarding chemical mechanisms of oxygen and electrolyte balance and their relationships to uterine placental circulation in terms of alterations of fetal heart rate will be evaluated.

The pertinent problem is oxygenation of the fetus, especially during the contractions of the uterus. The fetus adapts to this oxygen environment by a series of chemical changes, apparently involving the structure of the hemoglobin molecule. The critical oxygen values on both sides of the placental barrier are known and, in general, at 40 weeks fetal blood is about 60 per cent saturated with oxygen. The fetus is able to stand such an oxygen deficit because of a certain acclimatization and mechanisms for obtaining energy without the use of oxygen. The mother's blood is so adjusted that maternal hemoglobin gives up oxygen more readily than the nonpregnant adult, and the fetal blood is adjusted so that its hemoglobin takes up oxygen more rapidly than that of the adult. Since the rate of fetal uptake of oxygen is high and the uterine blood flow is increased in pregnancy, the fetus uses a higher proportion of oxygen available to it than does its mother.

Studies of the effects of anoxia on the human newborn brain have been reported. Clifford,[3] in his review of the effects of asphyxia on the newborn infant, described cerebral edema in 7 infants' brains and small areas of hemorrhage in 3. One infant showed encephalomalacia and another demonstrated cerebral ganglion-cell degeneration. Courville[4] has been most convincing in his support of the idea that a number of chronic disease states which make their appearance during infancy and early childhood have their genesis in neonatal "asphyxia." He believes that the inherent characteristics of the lesions themselves suggest their anoxial origin.

The role of asphyxia, anoxia or hypoxia producing brain damage has also been observed in a number of animal experiments. The earliest such experiment was conducted in 1928 by Ford,[5] who asphyxiated newborn kittens in an atmosphere of pure nitrogen and later resuscitated them. The animals were sacrificed either immediately or 2 weeks later, at which time the brains were examined. No gross or microscopic evidence of brain damage was seen in the newborn kittens. Windle and his associates[6] used newborn guinea pigs. Experimental cesarean sections were performed under local anesthesia in guinea pigs at term. Asphyxia was induced by occluding the uterine or umbilical circulation of more than 70 fetuses; 50 litter-mate fetuses were delivered for controls without asphyxiation. Sixty-six of the newborn guinea pigs were resuscitated and lived 30 minutes to 13 weeks. Brains of all were preserved and sectioned serially by a controlled method which allowed exact comparison of staining qualities. Multiple capillary hemorrhages and occasionally larger hemorrhages were found in all animals between 3 hours and 5 days after resuscitation, in half between 30 minutes and 2 hours, and in none killed by the asphyxia. Great variation in the amount of hemorrhage and its distribution was encountered. Hemorrhage was not the primary cause of extensive neuron damage. Edema appeared to be present in all but 1 brain between 8 hours and 4 days after resuscitation. After 5 days it had subsided. Cytologic changes were observed in all the specimens between 1½ hours and 21 days after resuscitation. Generalized or regional atrophy followed the loss of neurons in ⅔ of the severely asphyxiated and half of the mildly asphyxiated guinea pigs. As late as 13 weeks after resuscitation, neurons of the experimental brains stained darker and were more shrunken than those of litter-mate controls. Areas of partial necrosis occurred in 8 animals. Loss of myelinated nerve fibers appeared to be secondary to cell loss. It can be concluded that experimental asphyxiation followed by successful resuscitation of guinea pigs at birth produced neuropathologic changes of variable degrees of severity in all specimens studied between 1½ hours and 3 weeks after birth, and produced detectable permanent structural changes in more than half of those allowed to live for more than 3 weeks. Windle and his associates contemplate further experiments with monkeys because their brain structure and the behavior of their infants have more similarity to those of human infants than those of lower animals.

Another problem concerns new knowledge of the cerebral circulation of the fetus during normal and abnormal mechanisms of labor. With refinements of the mechanical factors, such as the wiser selection of cases for pelvic delivery, dural tears and subdural hemorrhages are being reduced to a minimum. Brain hemorrhages are divided into those generalized subdural hemorrhages which are due to the stress and strain of the birth act and the subarachnoid and ventricular hemorrhages interpreted at the present time as the result of intra-uterine anoxia. No one questions that direct trauma can cause diffuse and focal damage to the infant's brain. There is great difficulty, however, in assessing the possible roles of traumatic or anoxic damage in any given child, as is perhaps best indicated by the increasing number of papers bearing on this point.

One type of brain hemorrhage which has a debatable status is the small petechial hemorrhage into the brain substance itself. Schwartz[7] described these lesions in detail in 1924. He emphasized that they were often located in the central white matter and basal ganglia of the forebrain. He concluded that most infants have some degree of petechial hemorrhage in their brains. Numerous investigators have corroborated the presence of these capillary hemorrhages, and for a time they were considered to be normal phenomena. Premature infants are very likely to have hemorrhages in the brain without gross lacerations. The inadequate supporting tissues and increased fragility of their blood vessels may contribute to these hemorrhages. It is the impression of this author that intracerebral petechial hemorrhages are not as common or significant as previously thought. Schwartz emphasized that the vein of Galen functions not only as a simple vascular channel, but also as a regulator of cerebral venous circulation, which is capable of accumulating considerable amounts of blood. Earle, Baldwin and Penfield[8] have demonstrated an incisural sclerosis related to temporal lobe seizures which are, in their opinion, produced by hippocampal herniation at birth. In the past most of the attention has been focused on the injuries to the venous structures of the cranial cavity. Lindenberg[9] has been emphasizing the regional arterial blood supply of the brain in relation to traumatic injury. It is very likely that some of his work applies to the fetus and newborn cerebral circulation. Only future research can evaluate this premise.

It has been my purpose and desire as discussion leader to define and set up the broad implications of fetal and neonatal distress. A few chemical mechanisms and some of the associated morphologic changes have been presented. No single medical specialty could provide all of the answers. An interdisciplinary team as represented by this panel, including obstetrician, pediatricians, anesthesiologists and pathologist, illustrates the keynote for future endeavors.

AN OBSTETRICIAN'S VIEWPOINT ON THE MANAGEMENT OF PERINATAL DISTRESS

PETE COMMINGS, M.D., F.A.C.S.

Assistant Professor of Obstetrics and Gynecology, Georgetown University School of Medicine

Many factors and agencies are responsible for the reduction in perinatal mortality during the past decade. The most important are the training and educational programs in obstetrics and pediatrics which have developed and have provided better qualified specialists and more competent general practitioners. Along with these has been a great improvement in facilities for good obstetrical and pediatric care.

The U. S. Children's Bureau in 1946 reported that more than half of the neonatal deaths occur in the first day of life. An analysis of the 54 neonatal deaths which occurred at the Georgetown University Hospital in 1956 revealed the percentage to be essentially the same. The purpose of this presentation is concerned primarily as to how to prevent this mortality by better obstetrical care. As it has already been mentioned, prematurity is the most common cause of neonatal mortality, being responsible for 60 per cent of the neonatal deaths which occurred at the Hospital in 1956. Just why a woman goes into labor is still a mystery. There are many factors responsible for these premature births, as shown in table 4.

TABLE 4

Factors Responsible for Premature Births

1. Unknown
2. Premature rupture of membranes
3. Overdistended uterus secondary to
   a. Multiple gestation
   b. Polyhydramnios
4. Toxemia of pregnancy
5. Premature separation of the normally implanted placenta
6. Placenta previa
7. Chronic hypertensive vascular disease
8. Syphilis

A. Prematurity

1. Unknown. In our series of 54 neonatal deaths in 1956, the etiology of the premature labor remained unknown in 50 per cent of the cases.

2. Premature rupture of membranes. This event preceded the onset of labor in 41 per cent of the cases. Since we have not been too successful in preventing these 2 factors, it remains for us to improve the management of premature labor. The use of morphine and other sedative drugs to prevent and/or stop premature labor is contraindicated because it does not prevent or stop it. Recent literature reports the use of uterine-relaxing hormones when the membranes are intact as being encouraging in halting premature labor, but the effectiveness of this uterine-relaxing hormone varies greatly with the individual patient.

Patients who have prematurely ruptured membranes should be left alone and kept flat in bed, preferably in the hospital. They will frequently remain like this for several weeks before going into labor. The chief concern in such patients is to prevent intra-uterine infection, which not only will initiate labor but will involve the baby in utero and contribute to its death. These patients should be given broad spectrum antibiotics daily. A careful sterile speculum examination should be done soon after the rupture of the membranes to see if there is prolapse of the cord. This procedure should be repeated at least once a week and again when labor begins. When labor begins it is usually of short duration. In our group in 1956 the average was 2 to 5 hours.

It is best to avoid giving sedatives to these patients. Relief of discomfort should be accomplished by the use of regional anesthesia. When the second stage is reached and the head is on the perineum, an adequate episiotomy should be done and the baby then delivered preferably by gentle fundal pressure or by the use of forceps. The baby should be handled gently, kept at a level just below the perineal body, its air passages cleared of mucus, and the cord clamped only after it ceases to pulsate in order to give the baby all the blood from the placenta that it can get.

3. Overdistended uterus.

a. Patients who are known to have multiple gestation should limit their activities to the bare necessities and spend most of the time in bed. This seems to help carry them closer to term before the onset of labor ensues.

b. The patient with polyhydramnios can be placed on the same routine but she can be made more comfortable periodically by draining slowly some of the excess amniotic fluid through a trocar which is inserted through the abdominal and anterior uterine walls. This procedure, though easily done, is occasionally followed by undesirable sequelae.

4. Toxemia of pregnancy. This is best treated by prevention but should be treated early in the hospital with the drugs which are currently in use. If the response to the therapy is good and the baby is small the pregnancy should be permitted to continue. If signs and symptoms of toxemia persist the baby's life in utero is being jeopardized and it would be best to deliver the baby.

5. Premature separation of the placenta. The diagnosis of this condition in a normally implanted placenta is frequently made too late to save the baby, because the separation often occurs long before the patient reaches the hospital and the baby is dead. Occasionally this entity occurs while the labor is being observed in the hospital. If the cervix is not fully dilated to permit the delivery of the baby at once, cesarean section should be done if the fetal heart rate is not greatly altered.

6. Placenta previa. When the diagnosis of placenta previa is entertained the management of the pregnancy depends on the amount of bleeding. If the amount is small and stops, the patient is observed in the hospital, kept in bed, and pelvic examination deferred in order to avoid initiating more bleeding. This is done with the hope that active bleeding may be delayed and occasionally it is for 2 or more weeks, thereby giving the baby a chance to continue its growth in utero. If bleeding becomes active, a pelvic examination should be done in order to determine the degree of placenta previa, the status of the cervix, and the method of delivery to be used, that is, by the vaginal or abdominal approach.

7. Chronic hypertensive vascular disease. Patients should be observed closely for signs of superimposed preëclampsia, because it is a frequent complication. Such a patient responds with a fulminating vasculorenal syndrome which leads to infarction of the placenta and death of the baby in utero.

8. Syphilis. At present syphilis does not present the problem it used to be because the diagnosis is made early and treatment is given.

Much has been written about the effects of good prenatal care and a diet which is high in proteins, minerals, and vitamins in the prevention of premature labor and toxemia of pregnancy. In 1942 the Report of the Peoples' League of Health[10] revealed that such a diet decreased the rate of premature deliveries by 17 per cent and the toxemias by 30 per cent.

B. Central Nervous System Injury.

Injuries to the central nervous system rank second as the most common cause of stillbirth and neonatal death. These injuries are brought about by narcosis, anoxia, and brain hemorrhage. The narcosis which is secondary to the analgesic drugs and anesthesia used in labor and delivery depresses the respiratory center and leads to anoxia of the tissues. The tissues of a baby in utero or at birth can withstand the lack of oxygen for a longer period than they would at any time later.

This continued lack of oxygen may occur in cases in which there is a prolapse of the cord with impingement of the cord between the presenting part and the pelvis, tight loops of cord around the baby's body, sudden wide fluctuations of the maternal blood pressure, separation of the placenta, and progressive placental infarction, as well as in cases of prolonged labor in which the tonus of the uterus is increased and the placental functions impaired, the effect of this oxygen want bringing about a fetal bradycardia.

The baby's chances of survival without sustaining central nervous system injuries depend on how soon the diagnosis is made and the time it takes to deliver the baby from such an environment. In some cases the prompt administration of oxygen as long as necessary may save the baby.

This continued lack of oxygen is sometimes accompanied by a brain hemorrhage which is secondary to trauma to the brain suffered in passing through the birth canal. The amount of trauma necessary to produce injury seems to vary with the case, the biggest discrepancy occurring between mature and premature infants. The premature baby is particularly liable to bleeding because of the more friable vessels and softer and more pliable cranial bones. The most common lesion is a tentorial tear producing bleeding above or below the tentorium.

One should always know what the cephalopelvic relationship is. The delivery of the baby by the use of forceps or by assisted breech extraction is much easier if the structure and architecture of the bony pelvis are known. If the condition of the baby and mother is good, the golden rule should be to avoid haste, because in haste both the maternal and fetal tissues sustain injury. The fetal mortality in breech delivery is high because too much haste is used in the delivery, too many manipulations of the fetal axis are done, and the presence of a cephalopelvic disproportion is not entertained. For this same reason together with injury to the uterus, version and extraction, except for the use in delivery of the second twin when it is high in the uterine cavity, has been relegated in most instances to the old historical bag and has been replaced by cesarean section.

CAUSES OF NEONATAL DISTRESS: THE ANESTHESIOLOGIST'S VEIWPOINT

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The foremost cause of neonatal distress is a deficiency in the supply of oxygen available to the newborn infant. The term apnea implies cessation of breathing. Anoxia and hypoxia imply an oxygen lack. The term asphyxia describes the condition in which there is anoxia with an increased carbon dioxide tension in the blood. The terms fetal anoxia, hypoxia and asphyxia neonatorum have commonly been used synonymously.

It is important to remember that overdosage of premedication and anesthesia often lead to respiratory depression. What is safe premedication and anesthesia for the normal child may be markedly depressant to the premature infant and to the ones with cord, maternal and labor complications.

It is important that the use of narcotics, sedatives and anesthetic drugs given to the mother in the presence of fetal distress be kept to a minimum. These drugs all pass the placental barrier.

Local anesthetics, spinal and caudal anesthesia produce the least effect on the infant, provided the blood pressure is maintained above 80 mm. Hg. Inhalation anesthesia with nitrous oxide and oxygen is difficult without anoxia. Ether anesthesia unduly depresses the baby. Ethylene and oxygen or cyclopropane and oxygen allow adequate oxygenation with sufficient anesthesia for delivery.

Flagg[11] has classified asphyxia neonatorum as follows:

1. The State of Depression
    - Respiration poor in quality
    - Recurrent cyanosis
    - Infant depressed but capable of being aroused
2. The Stage of Spasticity
    - Respiration irregular and gasping
    - Marked cyanosis
    - Reflex reaction to aspiration within the pharynx
    - Active glottic reflex
    - Froth of mouth and pharynx
3. The Stage of Flaccidity
    - Respiration at long intervals or absent
    - Flaccidity of all muscles
    - Jaw completely relaxed
    - Glottic structures collapsed
    - Fluid in hypopharynx
    - Circulatory failure

Treatment of all stages of asphyxia is by adequate oxygenation.

The treatment of the stage of depression is by treatment with straight flow oxygen at atmospheric pressure.

The treatment of the stage of spasticity is by intermittent positive pressure oxygen coördinated with the baby's efforts to breathe.

The treatment of the stage of flaccidity is by intermittent positive pressure oxygen. If the airway is not adequate an endotracheal tube may be inserted.

The Apgar classification[12] evaluates the newborn infant 60 seconds after birth by grading 5 signs. The signs used are as follows:

1. Heart rate
2. Respiratory effort
3. Reflex irritability
4. Muscle tone
5. Color

Each sign is 0 if absent, 1 if partial, 2 if present. A total score of 10 indicates the baby is in the best possible condition.

Carbon dioxide-oxygen mixtures are not used in infant resuscitation. There is already an overabundance of carbon dioxide, and carbon dioxide in overdosage is actually a respiratory depressant.

The analeptics are not indicated in the treatment of neonatal asphyxia. They are powerful cerebral stimulants and greatly increase the cerebral demand for oxygen. Their administration causes the oxygen level in the brain to fall to dangerously low levels.

The use of external stimulations, such as dilation of the anal sphincter, violent spankings, immersion in cold water tubs, and flexion and extension of the infant are never indicated.

Aspiration of the stomach contents in babies after cesarean section has been shown to be effective in reducing the incidence of formation of hyaline membrane.

A definite plan of action is used in taking care of the baby in need of resuscitation:

1. Patent airway. Mucus and fluid material must be aspirated and the tongue held forward to allow oxygen to come in and carbon dioxide to get out. Mechanical suction is very useful in cleansing the pharynx and nostrils.

2. Warmth. Body heat should be preserved in a heated bassinet.

3. Head-down position. Fifteen degrees Trendelenburg makes easier the removal of mucus and fluids.

4. Oxygen. Straight flow for the depressed but breathing baby.

5. Oxygen. Manually regulated positive pressure applied intermittently for the non-breathing baby. Pressures up to 16 mm. Hg are used to inflate the lungs initially, then pressures of 10 to 12 mm. Hg are applied about 12 times a minute.

There are many mechanical devices available for this intermittent positive pressure resuscitation. The Kreiselman Infant Resuscitator embodies all the features necessary for adequate infant resuscitation.

CAUSES OF NEONATAL DISTRESS WITH REFERENCE TO THE CHEMORECEPTIVITY FACTORS IN NEONATAL RESPIRATION AND THE NEUROLOGIC EVALUATION OF THE ANOXIC INFANT

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The carbon dioxide-oxygen economy of the human fetus is relatively unexplored, and most of our information on the subject of the chemical mechanisms involved has been derived from animal studies. Obviously a complex series of chemical adaptations must be made by the fetus when the marine existence of an intra-uterine environment ceases. Like the pollywog that swims from the sea to the terrestrial life of a frog, the human fetus must achieve a balance of chemical factors to regulate his own blood gases by his own respirations independent of the maternal environment if he is to survive.

The oxygen capacity of the umbilical vein blood is about 20.8 vol. per cent, although handling, obstruction and manipulation of the cord can depress this figure considerably. At the onset of extra-uterine respiration the blood is only 50 per cent saturated, the human fetus receiving some 10 vol. per cent of oxygen per 100 c.c. of blood. The blood returning to the placenta via the umbilical arteries carries much less oxygen (about 7 c.c. of oxygen are deposited for every 100 c.c. of blood delivered). This affinity for oxygen has been credited to a particular affinity of fetal hemoglobin and fetal erythrocytes.

Although it has been demonstrated that in the absence of oxygen there is some utilization of glucose with the production of lactic pyruvic acids, the production of anoxia beyond normal limitations apparently results in an elevation of organic acids which react with fixed base to form the sodium salt and displace the bicarbonate ion. This results in a rise in CO_2 tension and lowering of the pH of the blood.

Complex neurochemical factors resulting in stimulation of the respiratory centers appear to be responsible for the initiation of postnatal respirations and are probably initiated by the fetus in utero. There is evidence to indicate that the chemoreceptors of the premature and newborn are more active than those of the adult, and this provides a poor defense against anoxia, and the medullary centers tend to be rapidly depressed by oxygen starvation and are unable to respond to peripheral stimulation. More recently evidence has been presented to show that chemoreceptor activity is less important in the first couple of days after birth than later in postnatal life. The importance of this mechanism requires further investigation.

The properties of the drugs commonly employed to stimulate respiration in the anoxic infant would suggest that most are of questionable value and some because of their narrow range of safety may be quite dangerous. As summarized in the report of the special committee on infant mortality of the New York State Medical Society, these drugs may be considered to act either primarily at the chemoreceptor level, particularly the carotid body, directly upon the respiratory center, or as metabolic antagonists to narcotics.

1. Alpha-lobeline. The dose is 3 mg. ($\frac{1}{20}$ grain) and may be given intravenously, intramuscularly or subcutaneously. In addition to being chemoreceptive, there may also be stimulation of the medullary centers with resultant vomiting and by vagal excitation causing bradycardia, hypotension and bronchial constriction. The capricious nature of this drug makes it too dangerous and uncertain to be used for this purpose.

2. Coramine. The dose is 0.2 to 0.4 c.c. and is given subcutaneously or intramuscularly. This

drug similarly may cause stimulation of higher centers, and may cause death by respiratory paralysis; therefore it is not recommended.

Of those acting on respiratory centers:

1. Caffeine sodium benzoate in the dosage of 16 to 32 mg. (1/4 to 1/2 grain) intramuscularly or intravenously may induce general stimulation of the central nervous system including the respiratory center. This dosage may be repeated in 30 to 60 minutes and is considered a safe and somewhat valuable drug.

2. Picrotoxin, 0.6 mg. (1/100 grain), given intramuscularly or intravenously is an effective stimulant, especially when respiratory depression is due to barbiturate overdosage, but an overdosage may induce clonic convulsions and is generally not recommended.

3. Pentylenetetrazol (Metrazol) has been used intravenously in dosages of 12 to 26 mg. (0.12 to 0.26 c.c.), but the safety range of moderate and excessive stimulation approaches the toxic level very closely and may induce seizures. It is considered too dangerous to use.

4. Epinephrine in dosages of 0.05 to 0.1 mg. (1/1200 to 1/600 grain) stimulates the central nervous system too briefly to be of any importance, and overdosage may cause ventricular fibrillation.

Metabolic antagonists: Nalline (N-allylnormorphine) is a drug which appears to be effective in combating narcosis due to opiates given to mothers. The dose is 10 to 15 mg. (1/6 to 1/4 grain) given to the mother by the intravenous route. If the interval of time between injection and delivery is longer than 25 minutes the respiratory depression of the infant may not be relieved. The value of Nalline when administered to infants is best demonstrated when given in the umbilical cord. The dose is 0.2 mg. (1/300 grain) in 2 c.c. normal saline. Nalline apparently competes with narcotic agents at their site of action, is not a central nervous system stimulant, and should not be given to narcotized infants who are anoxic due to ether anesthesia.

The most important measures for the relief of fetal asphyxia remain the establishment of a clear airway, adequate supply of oxygen, and prevention of infection.

Certainly most of these drugs have little virtue and could prove quite harmful in the presence of central nervous system damage, and a most important handicap for normal neurochemical mediation of extra-uterine respiration is central nervous system deficits, particularly those due to cerebral hemorrhage.

The newborn anoxic infant may clinically present a variety of patterns requiring careful evaluation. The most important and yet, unfortunately, the most frequently neglected clue is a careful and detailed history of the pregnancy, labor, delivery and other maternal data, in addition to the knowledge of the condition of the baby at the instant of delivery.

Too often the pediatrician carries out his initial examination some hours after the delivery when accurate information concerning these data is not available. The mother is sedated, the obstetrician has gone home, the nursing shift has changed, and in some instances the resident physician has not completed the brief history forms required by hospital regulations upon transfer of the infant to the nursery. In the interest of more accurate diagnosis there is frequently a need for better coördination between disciplines in this area. Faced with a cyanotic, hypertonic or pale, "rag doll" hypotonic infant, details of the birth condition are essential to proper management.

The normal reflexes present at birth are:

1. Sucking and rooting reflexes.

2. Moro or startle reflex, due to the loss of the environmental proximity of the uterine wall. When the infant is startled by vibration, noise or sudden motion a sharp cry and throwing out of the extremities is followed by a drawing in of the arms and flexion of the knees. The absence or poorly executed Moro has considerable significance in intracranial injury.

3. Tonic neck reflex, a postural reflex resem-

bling a fencer's pose, characterized by extension of the arm and leg when the opposite limbs are flexed.

4. Deep tendon reflexes, usually producing a mass response involving the whole extremity. Hyperactivity due to cerebral damage may produce upon tapping the knee a mass response of all 4 extremities.
5. Abdominal, cremasteric and Chvostek's facial nerve reflex, variably and normally present.
6. Grasp reflex, normally present and elicited by palmar pressure.
7. Babinski plantar reflex, frequently elicited.
8. Ankle clonus, of little significance but frequently marked in instances of cerebral damage.

Fetal anoxia and cerebral hemorrhage are so closely related that it is hard to separate them. Because of the oxygen-lack damage to cerebral vessels there is a tendency for seepage to occur through the walls and set up a vicious cycle which develops further anoxia. This is commonest in the small vessels in the subarachnoid space, and the blood tends to accumulate in the sulci. Small petechial hemorrhages may occur throughout the cortex causing more profound cerebral damage.

Craig[13] has classified the clinical effects of cerebral hemorrhage of the newborn on the basis of the severity of the symptom-complex in the following manner:

1. Gross or violent physical signs: convulsions, asphyxia, bulging fontanelles, neck rigidity, inactivity followed by restlessness, extremely anxious expression on the face.
2. Severe physical signs: marked irritability, excessive stimuli response, tense fontanelles, occasionally twitching, hypertonicity, cyanotic spells, and an alert, anxious facial expression.
3. Moderate physical signs: unnatural alertness, restlessness, jumpiness, transient disappearance of the Moro reflex usually relieved in 3 to 4 days.
4. Minor or transitory physical signs: failure to thrive, poor sucking reflex, lack of vigor in crying or moving about, transient failure to alert a Moro reflex.
5. Delayed physical signs: development of 3 or 4 above after a few days of apparent normalcy.

The treatment of anoxia due to central nervous system hemorrhage is largely diagnostic and symptomatic. Differentially one must consider:

1. Infections, including sepsis, meningitis, pneumonia.
2. Obstructions of the air passages, such as atelectasis, diaphragmatic hernia, hyaline membrane disease, obstruction of the upper respiratory passage, and pneumothorax.
3. Anoxic effects due to insufficient blood, including congenital heart disease and hemolytic disorders.
4. Metabolic abnormalities that may induce convulsions, particularly tetany and maternal hyperparathyroidism. Infants with low calcium-high phosphorus blood levels due to the immaturity of the parathyroids and kidneys, in response to a high phosphorus load (cow's milk) may have convulsions. Vitamin B_6 deficiencies in certain dietary regimens have also been indicted as a cause of convulsions.
5. Phrenic nerve paralysis may result in an anoxic picture simulating central nervous system damage.

Minimal handling, adequate oxygen, clear airway, phenobarbital for seizures, and extreme care in the feeding procedure form the basis of management when the diagnosis of anoxia due to central nervous system bleeding is established.

CAUSES OF NEONATAL DISTRESS DUE TO ISO-IMMUNIZATION

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The most common clinical condition responsible for kernicterus is erythroblastosis fetalis due to maternal Rh immunization. Hyperbilirubinemia and the associated anoxia are the usual etiologic mechanisms accepted at the present time which lead to nuclear jaundice of the brain. As previously stated, most cases involve the common Rh blood group. However, an increasing number of cases in recent years have been reported due to the ABO incompatibility. In my own experience the disease is being observed 2 or 3 times as often in common autopsy material of the premature infant as compared to the fullterm newborn. In this country Zuelzer and Mudgett,[14] and in England Crosse, Meyer and Gerrard,[15] have made observations on the high incidence of kernicterus in premature infants. They have emphasized the relationship of anoxia and excessive therapy with vitamin K as being more commonly associated in babies developing kernicterus than in a control group. Silverman and his co-workers[16] in this country think that there is some relationship between the therapy such as penicillin-sulfisoxazole given the premature infant and the presence of kernicterus. Numerous types of brain damage have been the residual manifestations of kernicterus. Various gradations from single nerve involvement to extensive destruction of the central nervous system have been seen.

The hemolysis of red blood cells which takes place in erythroblastosis occurs at a time when the infant's liver is notoriously inefficient in handling the by-product, bilirubin. The red blood cells are destroyed in the infant's reticulo-endothelial system after they have been sensitized by maternal antibody. The most immediate hazard to the baby is cardiac failure due mainly (if not entirely) to anemia. This is evidenced by pallor, dyspnea, rales in the chest, enlarged liver, and sometimes anasarca.

The second hazard is hyperbilirubinemia, which may result in fatal or permanently crippling damage to the central nervous system. Prior to birth this substance is eliminated through the placenta. Although elevations of more than 20 mg. per cent of bilirubin do not always cause damage, kernicterus almost certainly will not occur if the serum level stays below that figure.

Exchange transfusion is quite efficient in 3 accomplishments: (1) in removing the infant's sensitized cells, (2) in relieving the anemia, and (3) in affording the operator an opportunity to relieve any increase in blood volume which is mechanically embarrassing.

Exchange transfusion is much less efficient in reducing the total amount of bilirubin in the body because this material travels extravascularly into the tissues. While the exchange is in progress and bilirubin-laden blood is being replaced by normal blood, the extravascular bilirubin is constantly moving back into the circulation seeking an equilibrium. The movement continues after the exchange is completed, and in heavily jaundiced babies repeated exchanges may be required to finally achieve a stable, safe level.

Exchange transfusion has the following dangers which may be minimized by the operator with skill: (1) Infection may be introduced by contaminated apparatus or careless technic; (2) the citrate of donor blood may reduce the infant's ionized calcium dangerously unless calcium gluconate is properly administered; (3) other electrolyte imbalances such as hyperkalemia may be induced by blood which has been kept too long; (4) the infant's circulation may be overloaded; and (5) exposure and trauma may be deleterious. Supplying warmth and oxygen is important.

If the Coombs' test shows that the infant's red blood cells are sensitized, he is a potential candidate for an exchange transfusion. If he shows no clinical evidence of the disease, exchange should be withheld pending evidence of active hemolysis unless he is more than 2 weeks premature or unless the maternal antibody titer is as high as 1:64. Evidence of dangerously active hemolysis would be: a cord hemoglobin level below 15 Gm., a serum bilirubin level in cord blood of above 4 mg. per cent, a rise in serum bilirubin above 10 to 12 mg. per cent in the first 24 hours, or clinical jaundice during the first 24 hours. The danger from hyperbilirubinemia persists until the bilirubin begins to fall, usually on the fourth day (prematures, 5 to 6 days). Clinical progress must be checked frequently, and if jaundice is marked bilirubin levels should be repeated every 8 to 12 hours at least.

Newborn nursery personnel should be trained to report immediately jaundice in any baby less than 36 hours old. Erythroblastosis due to rare blood factors or to ABO incompatibility may require unexpected action.

CAUSES OF NEONATAL DISTRESS—DISTRESS IN THE PREMATURE INFANT

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My remarks will deal primarily with the problems of the premature infant. As was pointed out by Dr. Anderson in his first slide, anoxia was the cause of 1/3 of the perinatal deaths, with the second cause listed as "no abnormal state." I believe that these data apply in large measure to the infants who have not reached full term or weigh less than 2,500 Gm. I am sure you are all aware that premature deaths constitute the highest proportion of all perinatal deaths.

When the pediatrician is requested to see a premature infant, one of the first questions asked aloud or silently is "What was the probable cause of this premature delivery?" In the average hospital experience the incidence of premature birth concerns about 5 to 10 per cent of the total deliveries. In a municipal hospital dealing primarily with indigent patients, percentage of premature births has been known to be 2 to 3 times as high as that in a university hospital with a more selected clientele, most of whom have received more adequate prenatal care.

Factors concerned with the live birth and survival of a premature infant may be considered under several categories:

1. Maternal factors. Prenatal care is one of the most important aspects of obstetrical care. The incidence of premature birth is indirectly related to the amount of prenatal care received. Multiple pregnancies are subject to a considerably higher perinatal mortality than single births. The fetal death rate for multiple births has been reported as being more than twice that for single births and the neonatal mortality 6 times that for single births, this being essentially due to the prematurity involved. Diabetes in the mother is another contributing factor to the increased perinatal mortality in prematures. Toxemia of pregnancy has generally been associated with an increased perinatal mortality; some of this is due to fetal death and in other cases to premature delivery with failure of survival of the infant. Bleeding in the last trimester is often associated with premature delivery and distress of the premature infant.

The degree of distress or even survival of the premature infant may often be related to medication and anesthesia which the mother has received. I believe Dr. Alpert has covered this aspect very well. The type of delivery has been shown to play a role in the survival of the infant, as may the judicious, careful resuscitative measures employed immediately after delivery.

2. Fetal factors. Fetal factors which contribute to perinatal mortality may be thought of in many categories. Congenital anomalies not compatible with normal live birth, such as severe hydrocephalus or ascites, may be present. In these cases necropsy demonstrates the lesions but does not give any hint as to the cause of the anomalies. Other congenital anomalies may occur which do not become apparent until after delivery. It is here that the pediatrician must demonstrate his diagnostic acumen. For example, a newborn premature infant having immediate cyanosis without respiratory distress and without benefit from oxygen administration can well be considered as having an anomaly of the cardiovascular system. Other anomalies may occur which produce either immediate or delayed respiratory distress with or without cyanosis. Among these may be abnormality of the larynx, tracheoesophageal fistula, diaphragmatic hernia, and anomalies of other organs such as cystic disease of the kidneys as well as others. The majority of premature infants who have neonatal distress do not show external evidence of congenital anomalies and fall into the second category listed, "no abnormal state." It is here that teamwork of obstetrician, anesthetist, nurse, resident and pediatrician is brought into full play. This involves both the immediate care of the infant and the future study of such cases by this team of personnel.

3. Environmental factors. Environmental factors may now be considered in the recognition and treatment of the distress of the infant. Premature infants are best cared for in a special, physically equipped unit, but, more important, cared for by specially trained personnel. An example of this, to illustrate the point, would be the nurse who noticed, at about 18 hours of age of the infant, excessive secretions from the nose and mouth, and later choking on first attempts to offer water. This made possible the early diagnosis of tracheo-esophageal fistula. All premature infants, immediately after birth, should have their air passages aspirated to assure a clear airway before any attempt is made to administer oxygen, particularly under positive pressure. It is advisable also that all infants delivered by cesarean section have a gastric lavage and aspiration by a competent person. Whereas in the past it has been customary to place all premature infants in an incubator with oxygen and high humidity, there has recently been considerable doubt about the advisability of this procedure on a routine basis. It has now been conclusively demonstrated, as you all know, that the use of oxygen in concentration of over 40 per cent for a prolonged period of time produces an increase in incidence of retrolental fibroplasia, especially in those infants weighing 3 pounds or less. Routine use of oxygen has been discontinued in most premature units. However, oxygen must be used for the relief of respiratory distress and cyanosis as indicated.

Another environmental factor that has recently been challenged is the use of increased moisture with or without other agents. It was shown in 1955 by Silverman and Andersen[17] that the use of vapor mist mixed with a detergent solution did not benefit a group of infants when compared with a control group placed in incubators under conditions of 90 to 100 per cent relative humidity. Hsia and co-workers[18] more recently have shown that the use of increased humidity (above 35 to 60 per cent) had no effect on the respiratory distress of premature infants. This was corroborated in a recent publication by Silverman and Blanc, that increased humidity had no effect on respiratory distress, although infants in the higher humidity had a lower mortality rate which was not explained.

Pulmonary hyaline membrane is a controversial diagnosis in some areas. It is said to occur more frequently in premature infants, with the first symptoms starting on the second to fourth day, with about 50 per cent survival. However, it is thought by some that adequate aspiration of the airway and, where indicated, lavage of the stomach reduce the incidence of these symptoms.

Another problem which constantly threatens in all premature nurseries is that of infection. It may enter the infant through the respiratory tract, the intestinal tract, or the skin surface and may lead to rather severe sequelae with all the distress that occurs in such infants with any infection. Fortunately, these cases are much less frequent in this era of antibiotics and with the more rigid controls which have been set up in hospitals, and yet they are encountered.

Finally, we are confronted with the realization that with our better technics, better nursing personnel, improved facilities, and the use of newer therapeutic agents, more infants survive only to demonstrate at 6 months, or a year or two later, residual developmental defects or sequelae to their distress in their neonatal period. I feel certain that all of us would agree that we are encountering more cases of neuropsychiatric sequelae. Some are given specific labels such as cerebral palsy, epilepsy, congenital deafness, blindness, etc. Others are classified as physically or mentally retarded, or both. Still others are simply designated as "a slow child." We are now setting the stage for further research and study into the complexities of these problems.

DISCUSSION AND SUMMARY

GEORGE W. ANDERSON, M.D.

Discussion Leader

This panel discussion on the causes and prevention of fetal and neonatal distress (perinatal distress) has attempted to summarize present knowledge on the subject. From your numerous questions, it is apparent that the definition of fetal and neonatal distress is not precise enough for proper understanding. Difficulties arise because fetal and neonatal distress are not single specific causes and effects, but multiple interactions of many factors which end in sickness in the fetus and the neonate. The words "distress" and "stress" are a question for semantics at this time. Recently Selye[19] proposed the following definition of stress: "the state manifested by a specific syndrome which consists of all the nonspecifically induced changes within a biologic system." Therefore, stress has its own characteristic form, but no specific cause. The definition of perinatal distress in its broadest terms could be synonymous with all illness in the fetus and neonate. It is apparent that there is a need for very clear definitions of (1) fetal distress, (2) neonatal distress, and (3) perinatal distress.

The causes of fetal distress are cord accidents, rapid labor, cephalopelvic disproportion, pitocin stimulation, and placental accidents such as placenta previa and abruptio. Other predisposing factors varied among such things as age of the mother, parity, toxemia of pregnancy, prematurity and postmaturity. The incidence of fetal distress varies in the literature from 1 to 20 per cent of total births.

At the present time the signs of fetal distress evolve around measurements of the heart rate and the presence or absence of meconium staining in labor with vertex presentations. Increases of the fetal heart rate above 170 beats per minute associated with meconium staining are questionable signs of fetal distress at the present time. There are no reliable signs to indicate fetal distress just before labor. A fetal heart rate of over 160 or under 100 and a sudden continued drop in the rate between labor pains and the presence of meconium in the vaginal discharge in the vertex presentation are both frequently noted in distress situations, but neither is entirely reliable.

At the present time the only way the clinician can evaluate the presence or absence of oxygen variation to the fetus is by the clinical detection of the heart rate (normal value of 120 to 160 beats per minute). The major question still remains as to whether the earliest changes in heart rate reflect the true oxygen metabolism in the fetus. We need more electrophysiological investigations which measure some of the variables when the oxygen situation is changing in the fetus as labor proceeds. Here the physicist, engineer, and obstetrician must create new tools for measurement and application.

Therapy for fetal distress involves intelligent management of the labor. The mother should be given 50 per cent oxygen by mask, and termination of the labor should be considered. It is difficult to say whether oxygen administered to the mother does much good, and proof is lacking that, even when the fetus's heart rate is impaired, the fetus is helped by these procedures. Cesarean section may be indicated occasionally after careful evaluation of the clinical picture.

At the present time the definition of neonatal distress has a wide range of variation and includes respiratory distress, circulatory distress, distress due to infections, iso-immunization, malformation, and a special type of distress associated with the premature. Obviously more precise definitions must be made for each of these specific types of neonatal distress.

The problem of resuscitation and the care of the newborn during resuscitation and the first few days of life were given considerable emphasis. A plea was made for accurate methods of diagnosis in regard to respiratory distress. The neurologic evaluation of the newborn infant is an area where pediatricians can add new refinements. The specific factors regarding erythroblastosis and the problems of iso-immunization and the benefits of exchange transfusion were also evaluated.

Distress in the premature was given priority in this discussion because of its major role in both perinatal mortality and perinatal morbidity. It was obvious that the underlying causes of the premature onset of labor, such as the nature and function of the myometrial muscle cells, must have more basic research in the future.

The postnatal period is a practical area for doing a chemical profile of the effects of trauma and anoxia and other complications of pregnancy on the homeostatic mechanisms of the infant. Most hospital history forms on the newborn are atrociously poor for getting factual physiologic observations which have meaning. Here the clinician by observation alone can do a great deal to improve the definitive study of the newborn. The methods and studies by Smith,[20] Karlberg,[21] Bering,[22] Cox,[23] and those of Robinson and McCance[24] have set the pace for future research. Measurements of excretion of nitrogen, phosphorus and potassium as well as water balance studies, serum electrolyte concentrations and blood sugars can be made by microcapillary blood methods and correlated with blood gas studies. Recent evidence indicates that regulation of body water and sodium concentration are intimately dependent upon an intact central nervous system.

Considerable emphasis in this discussion was placed on the effects of fetal and neonatal distress in regard to sublethal injuries which can be associated with not only fetal and neonatal deaths (perinatal mortality) but also sublethal injury involving the brain and other organs, resulting in such conditions as cerebral palsy, mental retardation, epilepsy, blindness, deafness and behavior disorders. The role of asphyxia, anoxia, or hypoxia in producing brain damage is a controversial one, and it is difficult to make definite conclusions about any of the data in the past. In general it can be said that infants that survive a period of anoxia may or may not show effects of the anoxia. Because of the numerous variables in the previous retrospective clinical studies, such as the methods of selecting cases and the definition of asphyxia, it is apparent in the future that we have to have more of the prospective type of study. It is apparent that only by careful profile studies of the labors and delivery followed by careful examinations of the infant in a prospective manner can final answers on the role of anoxia in the production of brain damage be obtained.

A working definition for perinatal distress is suggested which will include the possibilities of future knowledge involving such areas as stress from infectious, immunologic, radiation, endocrine, chemical, physical and psychosomatic factors. Definitions are often only concise statements of phenomena as they are formulated at the time of observation. Therefore, they are subject to further modification as new facts are observed. As diagnostic tests and precise measurements develop, the definition of fetal and neonatal distress will have to be wide enough to include these factors. Finally, it must be admitted that very few new facts have been added to the basic understanding of the processes involved in perinatal distress. Recognition of the necessity for a multidisciplined research program of fresh determining principles of precise mechanisms involved in the maternal fetal environment must be supported if future progress is to be made.

BIBLIOGRAPHY

1. Eastman, N. J.: Williams Obstetrics, 11th ed. New York: Appleton, 1956.
2. Gruenwald, P.: A.M.A. Arch. Path., 1955, **60,** 150.
3. Clifford, S. H.: Am. J. Obst. & Gynec., 1940, **39,** 388.
4. Courville, C. B.: Bull. Los Angeles Neurol. Soc., 1950, **15,** 99.
5. Ford, F. R.: Bull. Johns Hopkins Hosp., 1928, **42,** 70.
6. Windle, W. F., and Becker, R. F.: Am. J. Obst. & Gynec., 1943, **45,** 183.
7. Schwartz, P.: Ergebn. d. inn. Med. u. Kinderh., 1927, **31,** 165; Ztschr. f. d. ges. Neurol. u. Psychiat., Berl., 1924, **90,** 263.
8. Earle, K. M., Baldwin, M., and Penfield, W.: A.M.A. Arch. Neurol. & Psychiat., 1953, **69,** 27.
9. Lindenberg, R.: Die Gefassversorgung und Ihre Bedeutung fur Art und Ort von Kreislaufbedingten Gewebsschaden und Gefassprozessen, in Lubarsh, O., Henke, F., and Rossle, R.: Handbuch der Speziellen Pathologischen Anatome und Histologie, vol. 13. Berlin: Springer, 1956.
10. Interim Report of Peoples' League of Health. Lancet, 1942, **2,** 10.
11. Flagg, P. J.: The Art of Resuscitation. New York: Reinhold, 1944.
12. Apgar, V.: Anesth. & Analg., 1953, **32,** 260.
13. Craig, W. S.: Arch. Dis. Childhood, 1950, **25,** 325.
14. Zuelzer, W. W., and Mudgett, R. T.: Pediatrics, 1950, **6,** 452.
15. Crosse, V. M., Meyer, T. C., and Gerrard, J. W.: Arch. Dis. Childhood, 1955, **30,** 501.
16. Silverman, W. A., Andersen, D. H., Blanc, W. A., and Crozier, D. N.: Pediatrics, 1956, **18,** 614.
17. Silverman, W. A., and Andersen, D. H.: J.A.M.A., 1955, **157,** 1093.
18. Hsia, D. Y. Y., Peterson, H. G., Jr., and Gellis, S. S.: Pediatrics, 1957, **20,** 234.
19. Selye, H.: Metabolism, 1956, **5,** 525.
20. Smith, C. A.: The Physiology of the Newborn Infant, 2nd ed. Springfield, Ill.: Thomas, 1951.
21. Karlberg, P.: Determinations of Standard Energy Metabolism in Normal Infants. Sweden: Rossanders Tryckeri, 1952.
22. Bering, E. A., Jr.: J. Neurosurg., 1952, **9,** 275.
23. Cox, L. W., Chalmers, T. A., and Ward, O. C.: Arch. Dis. Childhood, 1952, **27,** 434.
24. Robinson, J. R., and McCance, R. A.: Ann. Rev. Physiol., 1952, **14,** 115.

ADDITIONAL REFERENCES

Abramson, H.: Obst. & Gynec., 1956, **8,** 377.

Anderson, G. W.: J. Pediat., 1952, **40,** 340.

Anderson, G. W.: Am. J. Pub. Health, 1955, **45,** 10.

Anderson, G. W.: Ibid., 1957, **45,** 1542.

Apgar, V.: New York J. Med., 1955, **55,** 2365.

Bernstine, R. L., Borkowski, W. J., and Price, A. H.: Am. J. Obst. & Gynec., 1955, **70,** 623.

Cook, C. D., and others: J. Clin. Invest., 1955, **34,** 975.

Cook, C. D., and others: New England J. Med., 1956, **254,** 562.

Corner, G. W., Jr.: Cerebral Palsy Review, 1955, **16,** 24.

Douglas, R. G., and Halsey, H., II: Bull. Margaret Hague Maternity Hosp., October 1954.

Eastman, N. J., Dunn, R. B., and Kreiselman, J.: Am. J. Obst. & Gynec., 1938, **36,** 571.

Eastman, N. J., and Kreiselman, J.: Ibid., 1941, **41,** 260.

Fitzgerald, T. B., and McFarlane, C. N.: Brit. M. J., 1955, **2,** 358.

Gerrard, J. W.: Canad. M. A. J., 1957, **77,** 661.

Goddard, R. F.: Rocky Mountain M. J., 1956, **53,** 708.

(*Continued on page 219*)

REMOVAL OF URETERAL CALCULI*

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THIS REPORT concerns 300 cases of ureteral calculus treated by me. The majority of ureteral calculi are expelled spontaneously, but stones over 1 cm. in diameter frequently become obstructive and require some form of intervention (figure 1). The general practitioner sees the patient first, usually administers a sedative and antibiotic, and awaits developments. One of two things happens—the patient either passes the stone spontaneously or it becomes impacted.

The majority of ureteral calculi originate in the kidney, and, if less than 1 cm. in diameter, they enter the ureter by peristaltic action. The factors which enter into the formation of such stones are dehydration, infection (urea–splitting organisms), stasis of urine, changes in the protein and calcium metabolism, endocrine disturbance, climatic conditions, vitamin A and vitamin D deficiency (never proven), recumbency following bone injuries, race, and locale. The importance of hydration in the prevention of stones cannot be overemphasized. The incidence of renal calculi in service personnel in the Pacific was found to be very high from dehydration. Frank Hamm[1] states that he has found no evidence to support the theory that salicylates or colloids prevent the formation of renal calculi.

The symptoms of ureteral calculi are usually initiated by colicky pain at the costovertebral angle radiating around the affected side. Nausea and vomiting are common, accompanied in most instances by red blood cells in the urine. In the presence of these findings an intravenous pyelogram should always be made. The location of the obstruction, its size, and the presence or absence of function of the kidney may be determined. Such manifestations as pain, chills and elevation of temperature usually cause the general practitioner to refer the patient to the urologist.

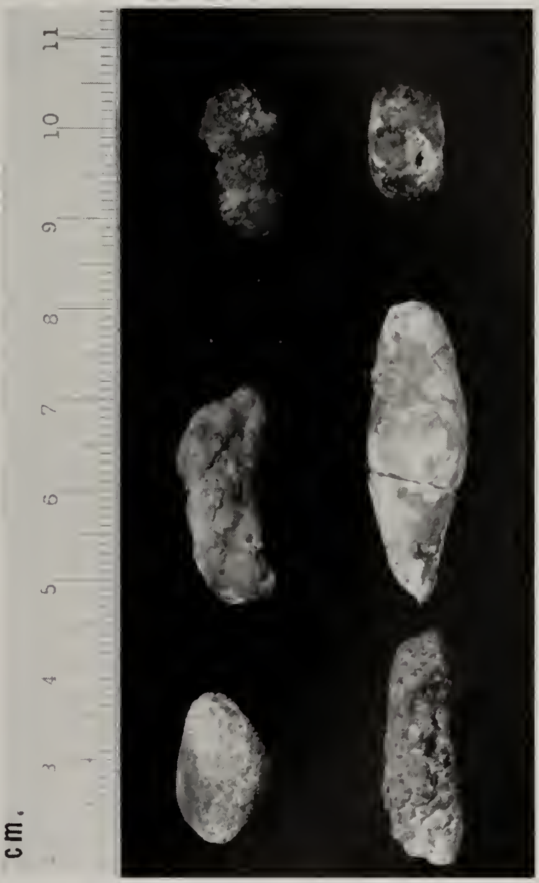

FIG. 1. Large ureteral calculi which became impacted and required ureterolithotomy for removal.

Thirty per cent of these patients had had a laparotomy prior to the establishment of a correct diagnosis. In a series of 128 patients from the Mayo Clinic, Thompson and Bumpus[2] found that 26.8 per cent had had an abdominal operation prior to their study. If in doubt one should do an intravenous pyelogram and possibly save the patient an unnecessary laparotomy.

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* Read before the Uro-Surgical Society in Princeton, New Jersey, October 21, 1957.

I have been asked why the basket bougie has been used so frequently. The basket bougie is a safe and positive method for extracting impacted ureteral calculi. One hundred patients were seen before and 200 after the advent of the Johnson basket.[3] A variety of devices were formerly used, such as the multiple catheter technic, the Davis catheter[4] with nylon loop, the Howard spiral dislodger, and a device with nylon threads attached to a ureteral catheter. I am of the same opinion as Middleton and Grua,[5] that the multiple catheter technic has been overrated. The axis of the stone and dilation of the ureter can be accomplished, but in only a few instances can an impacted stone be enmeshed and withdrawn with multiple catheters. The Councill basket was successfully used in some of the earlier cases.

Little success was achieved with the Ellik loop catheter.[6] This catheter is so fragile that I have rarely been able to get it past an impacted stone. The Levant stone dislodger lacks the rigidity necessary to pass a stone. The spiral extractor also has been of little value.

An anesthetic solution of Avertin was injected in the ureter in a number of patients, but the results were disappointing. In using all of these devices, the aim was to change the axis of the stone and also to dilate the ureter. This is a passive approach of "dilate and wait," whereas with the basket bougie it is a positive approach of "dilate and extract." Although in a number of cases spontaneous expulsion of the stone followed such manipulation, a successful result cannot be relied on with certainty, nor can any definite assurance be given regarding the time interval of expulsion after simple mechanical manipulation. As regards the danger of basket bougie extraction, my experience shows no known instance of perforation of the ureter. Oddly enough, this complication has occurred on 2 occasions when I have used the simple catheter technic, and in 1 case following the insertion of a plain bougie. Since these patients suffered no inconvenience from the perforation of the ureter, I see no reason to presume that, in the event of similar ureteral damage by a basket bougie, the outcome should be any different. Prompt use of antibiotics should prevent any complications, if the ureter is left alone and drainage is free.

In 1956 H. S. Browne[7] improved the usefulness of the basket by widening the insertion of lower strands of the wire into the shaft of the bougie. Nelson added to the value and safety of the basket by making a longer filiform attachment to the basket bougie. With the use of this device the possibility of perforating the ureter has been reduced.

In the last 200 patients with stones in the ureter, 17 per cent of the stones passed spontaneously, 55 per cent were extracted with the basket bougie, and 20 per cent required ureterolithotomy (figure 2). Seven per cent expelled the stone following manipulation, and 1 patient with severe infection required nephrectomy. There were no deaths, and in no known instance was avulsion or perforation of the ureter noted with the basket bougie.

The only mishaps that occurred in this entire series were 2 instances in which 1 of the wires of the basket broke. Fortunately, this occurred at the upper end of the basket so that no damage was done. It is my practice to use the improved basket bougie only a few times before replacing it.

The findings reported here are supported by Middleton and Grua,[5] who reported 70 cases of successful extraction of calculi with the use of a basket bougie with no perforations of the ureter and no mortality. Councill[8] also reported 504 cases in which an extractor was used successfully with but 2 perforations of the ureter.

Mathias, Bunts and Hutch[9] cite the novel use of a basket bougie in connection with ureterolithotomy. They extracted 8 calculi from inaccessible segments of the ureter by inserting a basket through an incision in the ureter.

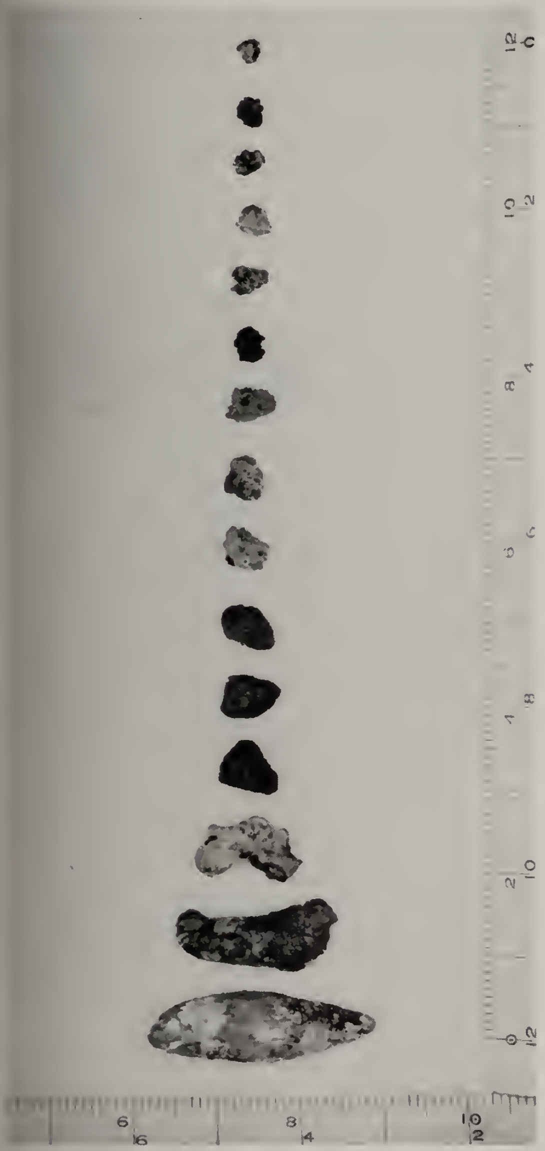

FIG. 2. Different types of ureteral calculi which required either ureterolithotomy or cystoscopic manipulation for their removal. The upper 8 calculi were removed with the basket.

Kittredge and James[10] mention 274 cases of impacted ureteral calculi, 73 per cent of which were found in the lower ureter. These stones were successfully removed with but one perforation of the ureter by the basket bougie.

Two recent papers, by Gartman[11] and by Marquardt and Pick,[12] describe the alleged hazards of removing ureteral calculi with a basket bougie and do not recommend its use. My experience has been completely contrary to their findings. The paper by Gartman[11] cited 10 patients treated by other urologists in the Army in which there were 3 cases of ureteral avulsion, 6 cases of perforation and 1 case in which a Johnson basket was lost in the ureter. He reported 218 cases of ureteral calculi, 51 of which were successfully manipulated with a catheter. He stated "no rigid or metallic instruments were used beyond visual range," and yet ironically he advises against their use. Marquardt and Pick[12] alleged that "stone extractors are mentioned only to be condemned," but they cited no cases to prove their contention.

Howard[13] reported 8 perforations of the ureter with a catheter or bougie but none with a basket bougie. Iwano and Bunts,[14] quoting Rusche and Bacon,[15] reported 17 cases of ureteral injury, 3 of which occurred following the use of a basket. In their own series of 9 patients ureteral injuries followed all types of manipulation. In 1, a filiform tip came off in the ureter, in another the basket snapped off, in a third the Councill basket broke, in 2 others a Dourmashkin bag[16] ruptured the ureter, in 2 an Ellik looped catheter produced avulsion of the ureter, and in the last 2 cases the use of a ureteral bougie was the cause of rupture of the ureter. Therefore, from an analysis of the cases reported, no single modality for extracting ureteral stones is entirely free from hazards, but neither is any surgical procedure. I know of a death from a simple cystoscopy performed elsewhere.

There are considerations for and against operative cystoscopy in impacted ureteral calculi. The urologist is confronted with few problems that involve as many factors as does the handling of an obstructive ureteral calculus. The age and general condition of the patient, duration of symptoms, size of the stone, degree of mobility or impaction, economic status and occupation, renal function, condition of the other kidney, and degree of infection of the kidney enter the picture. Many cases of ureteral stone are complicated by one or more factors which indicate the type of treatment and therefore present no problem. I am of the opinion that once an effort is made to extract a stone, it must be pursued until the stone is recovered, either by operative cystoscopy or ureterolithotomy. Obviously any form of ureteral instrumentation may produce complications such as pyelonephritis or further obstruction of the ureter with loss of renal function. Pain in the affected side lasting several days usually follows the extraction of a stone, and the patient should be forewarned.

In 15 per cent of the 300 cases, stones were located in the upper segment of the ureter. In the absence of obstruction, stones less than 1 cm. in diameter were observed for a period of time. Eighty per cent of these, however, were obstructive, were larger than 1 cm. in diameter, and had to be removed by ureterolithotomy. In a few cases of acute obstruction of the ureter the stone was intentionally pushed back into the pelvis of the kidney in the hope that the axis of the stone would be changed and the chance of further descent increased.

Calculi were lodged in the mid-ureter in 10 per cent of my cases, of which 8 were obstructive and not considered favorable for manipulation and therefore came to surgery. The other 4 stones were successfully manipulated. Seventy per cent of the stones were impacted in the lower ureter, and 18 per cent were in the intramural ureter. Twenty per cent of the stones impacted in the lower ureter measured more than 1 cm. in diameter, were obstructive, and were removed by ureterolithotomy. My associate, Dr. C. H. Ligon, successfully removed 1 of these stones by the vaginal route, following a diagnostic cystoscopic examination. This procedure was originated by Clay Shaw. Seventeen per cent of the calculi were expelled spontaneously, and the remainder were extracted with or following the use of the basket bougie.

In the case of 1 patient a stone impacted in the ureteral orifice measured 2 by 4 cm., and only after considerable effort was the stone withdrawn into the bladder. It had to be crushed before it could be removed from the bladder. The Stirling or Coppridge ureteral stone forceps may be used in extracting stones blocking the ureteral orifice.

In 10 cases the stone was engaged in the wire basket and could not be withdrawn through the ureteral orifice. The ureteral orifice was slit with an electrode slipped in alongside the wire basket. This procedure allowed the stone to pass.

Migratory stones in the ureter present a problem in diagnosis, particularly if the ureter is duplicated and the stone located in the ureter which cannot be catheterized. Two such cases occurred in this group. Despite immediate preoperative X-ray examination, a calculus was found in the pelvis of the kidney in each instance.

Nonopaque ureteral calculi also present a diagnostic problem and were found in 4 per cent of this group. Three stones were cystine in character and occurred in 1 family. The remainder of the calculi were composed of uric acid. When the ureter is blocked, sweeping it with the basket may disclose the presence of a bolus of sand or a nonopaque stone.

The no. 26 sheath McCarthy endoscope was generally used in association with the Nelson filiform tip basket. Not more than 2 attempts were made to pass the obstructive calculus at 1 examination, which probably accounts for the absence of complications.

The preliminary passage of a catheter or bougie into the obstructed ureter may accentuate the spasm and prevent the successful introduction of the filiform basket beyond the stone. If one can pass a catheter beyond the stone a basket should be used to extract it. Once the long filiform of the basket bougie is gently introduced above the stone, extraction is generally successful. In 20 cases the stone blocking the ureteral orifice was so large that when it was engaged in the basket it could not be withdrawn. Continuous traction was applied for 6 to 24 hours, and in every instance the stone was recovered. Two per cent of the stones were bilateral, and 5 per cent were multiple. In this series success in removing a large majority of impacted ureteral stones with the Johnson basket may be attributed to the fact that preliminary manipulation was avoided.

SUMMARY

Ureteral calculi have their origin in the pelvis of the kidney. If they are less than 1 cm. in diameter, expulsion is generally spontaneous, as observed in a series of 300 cases.

Pain in the affected side, nausea and vomiting, and red blood cells in the urine indicate the necessity for a preliminary intravenous pyelogram. This procedure will indicate whether open surgery or cystoscopic manipulation should be employed. Laparotomy should not be necessary to establish the diagnosis.

The danger of careful basket manipulation of an impacted ureteral calculus has been greatly exaggerated. No known perforation of the ureter was experienced with the use of the basket bougie in 55 per cent of 200 patients treated successfully by this method in the last 20 years.

BIBLIOGRAPHY

1. Hamm, F.: Personal communication.
2. Bumpus, H. C., Jr., and Thompson, G. J.: Surg. Gynec. & Obst., 1930, **50**, 106.
3. Johnson, F. P.: J. Urol., 1937, **37**, 84.
4. Davis, T. A.: Ibid., 1954, **72**, 346.
5. Middleton, R. P., and Grua, O. E.: Ibid., 1952, **68**, 125.
6. Ellik, M.: Tr. West. Sect., Am. Urol. A., 1946, **13**, 45; also, J. Urol., 1947, **57**, 473.
7. Browne, H. S.: J. Urol., 1956, **75**, 55.
8. Councill, W. A.: Ibid., 1945, **53**, 534.
9. Mathias, J. E., Bunts, R. C., and Hutch, J. A.: Ibid., 1956, **76**, 357.
10. Kittredge, W. E., and James, D. W.: Ibid., 1954, **72**, 342.
11. Gartman, E.: U. S. Armed Forces M. J., 1957, **8**, 313.
12. Marquardt, C. R., and Pick, J. W.: Clin. Med., 1957, **4**, 299.
13. Howard, F. S.: J. Urol., 1946, **56**, 319.
14. Iwano, J. H., and Bunts, R. C.: Ibid., 1953, **70**, 708.
15. Rusche, C. F., and Bacon, S. K.: Ibid., 1940, **44**, 777.
16. Dourmashkin, R. L.: Ibid., 1945, **54**, 245.

COMBINED USE OF MEPROBAMATE AND ASPIRIN IN GENERAL PRACTICE

A Preliminary Report

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MEPROBAMATE has been reported effective as a skeletal muscle relaxant,[1-4] as an anticonvulsant agent,[5] and for the management of anxiety and tension.[1, 6-10] Moreover, it has been found useful to alleviate premenstrual tension[11] and to relieve functional headache.[6, 7, 12] As these conditions are frequently encountered by the general practitioner and because associated pain is often refractory to treatment with meprobamate, it seemed desirable to employ adjunctive analgesic therapy. Even in many ordinary and physiologic conditions, tension-producing situations often arise, resulting in and intensifying the common pain-tension cycle. It was hoped that the value of this combination would be its inherent ability not only to relieve pain but also to calm patients made chronically irritable by pain and thereby to increase their physical comfort and improve their mental state.

Clinical Evaluation and Results

This study involved 41 patients who exhibited some form of pain, together with muscle spasm and various emotional disturbances, indicating the need for medication capable of producing muscle relaxation, as well as analgesia and relief from emotional tension and stress. All patients were given tablets containing 5 grains (325 mg.) of aspirin and 200 mg. of meprobamate.* The average dose was 1 to 2 tablets every 4 hours, amounting to a total daily ingestion of 0.8 to 1.6 Gm. of meprobamate and 1.2 to 2.4 Gm. of aspirin. The treatment was continued over periods ranging from 3 days to 4 weeks. As shown in table 1, these patients exhibited 1 or more of the following symptoms: skeletal muscle spasm, pain and tenderness, anxiety and tension, premenstrual stress and primary dysmenorrhea, headache, and abdominal cramps. Both acute and chronic cases were included in this study, and all adult age groups were represented.

TABLE 1

Results of Treatment by Symptom (41 Patients)

Symptom	Total Instances	Degree of Improvement			Per cent Improvement	
		Marked	Some	None	Marked	Some
Muscle spasm	18	11	5	2	61	28
Pain and tenderness	19	8	8	3	42	42
Anxiety and tension	21	13	2	6	67	10
Menstrual stress	8	7	0	1	90	0
Tension headache	5	3	1	1	60	20
General malaise	8	1	2	5	13	25
Nausea	4	0	0	4	0	0
Abdominal cramps	2	2	0	0	100	0

The results, listed in table 1, were evaluated by symptom according to the following criteria: (1) remission of symptoms was complete or symptoms were significantly relieved—classified as "marked improvement"; (2) symptoms were relieved, but not strikingly—classified as "some improvement"; and (3) symptoms were not relieved—classified as "no improvement."

Because all patients included in the entire study were private patients, they received, in addition to meprobamate-aspirin, the established and accepted treatments for their specific conditions. In all instances of favorable response, improvement was achieved in a shorter period of time than had been noted under conventional therapy prior to the use of the meprobamate-aspirin combination.

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* The meprobamate-aspirin used in this study was supplied as Equanil-Aspirin by Wyeth Laboratories, Inc., Philadelphia, Pa.

Side-effects. No serious side-effects were experienced in this study. Drowsiness, which occurred in a total of 15 patients, was most frequently noted, and probably was due in part to meprobamate's anti-anxiety and muscle-relaxant properties. In certain patients this response was considered desirable and may have been an adjuvant to therapeutic success, but in others a slight reduction in dose or the use of amphetamine derivatives overcame the drowsiness. Less frequent side-effects were dizziness (2 cases) and gastrointestinal symptoms (4 cases). Nausea and diarrhea when present were mild, and disappeared when medication was continued at a lower dose level. No patients in this group exhibited an allergic response.

DISCUSSION

Muscle spasm. Definite improvement was achieved in patients with various skeletal muscle conditions, including spasm of the muscles of the cervical, thoracic and lumobsacral areas, and osteoarthritis. The daily dose of 0.8 to 1.6 Gm. of meprobamate was not as large as that used by several other investigators. Berger[1] gave 1.2 to 2.4 Gm., Gillette[2] and Smith[3] both administered 1.2 to 1.6 Gm., whereas Eisenberg and Neviaser[4] gave initial doses of 3.2 Gm. followed by sustaining doses of 2.0 Gm. It is probable that even more pronounced relief could be achieved by supplementing the meprobamate-aspirin combination with additional meprobamate administered separately.

Pain and tenderness. Although meprobamate is not known to possess analgesic action, it is possible that by lessening the patient's anxiety it thereby increases his tolerance to pain. The beneficial effects of the aspirin component can be attributed to its widely accepted analgesic and anti-inflammatory properties.

Anxiety and tension. Anxiety states and allied psychosomatic conditions are extremely common to the practicing physician with some degree of symptomatic relief desirable before definitive treatment is undertaken. In this study marked relief was observed in the majority of the patients.

Premenstrual tension and dysmenorrhea. The majority of such symptoms as nervousness, irritability, depression, headache, nausea, tension and uterine cramps, so characteristic of menstrual stress, were substantially alleviated by meprobamate-aspirin medication.

Tension headache. This common type of headache is caused by sustained contraction of the muscles of the scalp and neck which secondarily produce pain in the head, neck, and shoulders. Using meprobamate-aspirin, significant improvement was achieved in the majority of patients.

SUMMARY

A combination of meprobamate and aspirin was administered to 41 patients in general practice and was found to be a useful and safe medication for the successful treatment of skeletal muscle spasm of varied etiology, myalgias due to infectious disease, states of anxiety, tension and nervousness, premenstrual tension and primary dysmenorrhea, and functional headache. The action of this combination could reasonably be attributed to the combined effect of meprobamate's ability to relieve muscle spasm, a common cause of pain, and to aspirin's analgesic and anti-inflammatory properties. Relief of pain was most evident when a functional element was involved in its production and in cases in which emotional factors such as anxiety and tension were present in the symptomatology.

BIBLIOGRAPHY

1. Berger, F. M.: Internat. Rec. M., 1956, **169**, 184.
2. Gillette, H. E.: Ibid., 1956, **169**, 453.
3. Smith, R. T.: J. Am. Geriatrics Soc., 1957, **5**, 152.

(*Continued on page 220*)

President's Page

MALPRACTICE CLAIMS AND THE SURGEON

Concern about the increase in malpractice claims in several states and the District of Columbia and the large awards by the courts, ranging from $100,000 to a quarter of a million dollars led me to wonder if these suits have any influence on surgical practice. I carried out an informal survey on a score of colleagues, which included general surgeons, neurosurgeons, orthopedists, chest surgeons, obstetricians and gynecologists, plastic surgeons, anesthesiologists, and roentgenologists. No attempt was made to get a true cross-section but merely to learn their thinking on the subject. I talked to each one and asked the following questions:

1. Do malpractice claims influence the manner in which you practice surgery?
2. Does the possibility of a suit prevent you from performing any type of operation or diagnostic procedure?

Two surgeons said the idea of a suit never enters their minds and one said that it occurred to him only when he has an aortogram. A roentgenologist said that the risk of suit made him avoid aortogram in some instances. Several surgeons denied that malpractice suits influenced their surgery but, when asked if they had given up any operation because complications might lead to a claim against them, qualified their statement. One has given up the Wertheim radical hysterectomy for carcinoma because it is at times complicated by ureteral fistula. Instead, he performs simple total hysterectomy which has fewer complications but probably not as high a rate of cure. Two neurosurgeons have stopped cutting the vestibular nerve for Ménière's disease since a claim was filed in the District in a case of damage to the facial nerve. All of the anesthesiologists attributed the decline in use of spinal anesthesia to malpractice suits.

The recent scare about the dangers of radiation has had its impact in the field of diagnosis and treatment. Obstetricians and roentgenologists have reduced the use of X-ray in pelvimetry. A surgeon has given up radium therapy in all cases of uterine bleeding and substituted hysterectomy.

On the other hand, doctors get more X-rays of the skull after head injuries, more X-rays of the ribs after chest injuries, and more X-rays for sprained ankles than necessary for purely medical reasons, because these are dictated by court decisions. This results in increased medical expense to the patient.

As we review these procedures, perhaps the same thought occurs to all of us: These changes in procedure might have occurred in the natural course of events and have merely had attention focused upon them by malpractice claims.

While a majority of those interviewed denied that claims against physicians influenced their surgery, about half volunteered that it had affected the management of surgical patients. They stated that they spend more time talking to patients before operation is decided upon. They discuss in more detail the probable risks and tend to emphasize the possible complications. In elective operations the patient has to assume a greater responsibility in the decision to operate. Consultants are called in more frequently when a serious operation is contemplated and more often when a complication develops following operation.

My survey indicates that malpractice suits do have an influence on surgery but only a limited number of procedures have been affected by the threat of suit. The most significant change which has occurred is that more time is devoted to discussion with the patient of the probable risks and possible complications before operation is undertaken.

Next month I shall report on the opinions expressed as to whether malpractice suits work to the ultimate good or harm of the patient.

James W. Watts

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OF THE DISTRICT OF COLUMBIA

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Editorials

AMA—MEETING THE CHALLENGE

AMA had its inception in strife. It was created to meet a challenge—the challenge of 1847's chaotic medical education. Gradually it became a Nation-wide representative organization, meeting one situation after another, from quackery to postgraduate education, from principles of professional behavior to principles for union health centers.

Our history has been rich in achievement, controversy, tradition and progressive, rapid change. We have known violent internal dissension and extraordinary unanimity of opinion. In short, AMA is an institution whose influence on our people and our times has always been profound. Whether blasted or lauded, few have denied its vigor and capacity for leadership.

Today, we stand on the verge of new developments that, whatever else they presage, mean continuing change for the AMA. Dr. Julian Price recently looked into the future and saw remarkable changes ahead, from cancer cures to schizophrenia drugs, to new patient-physician

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

relationships. One prediction is certain of fulfillment: Radical changes will occur in health care as they have in the past.

Our obligation is to contribute constructively as history is made. And positive contribution is derived from sound policies, developed on the basis of sound research. To meet the need for expanded research facilities, AMA has established a new foundation, the American Medical Research Foundation, for the purpose of conducting nonpartisan, competent studies in socioeconomic subjects that impinge on medicine, and in pure medical research wherever such research can add to the sum total of our scientific knowledge. We shall not duplicate what the medical schools and other great research institutions and voluntary agencies are now doing. But we shall supplement their efforts by exploiting the unusual resources on which we shall be able to draw. We expect this Foundation to provide new vigor to medicine's efforts to promote the science and art of medicine; and, furthermore, we foresee unlimited value to the temperate, factual, valid conclusions that will flow from the socioeconomic research that is also to be conducted.

The basic strengths of AMA have been its professional nature, its scientific programs, its Principles of Medical Ethics, its long continuity, its internal freedom of expression, its vigorous support of the legitimate interests of its members, and its espousal of programs to promote the public welfare. These strengths need to be cemented by expanding our programs and increasing our effectiveness. Our scientific programs are a prerequisite to our success as an organization. Dr. Hugh Hussey and others are now studying means of improving our annual and clinical sessions. Continuous improvements are being made in our scientific publications; and a new one is soon to be added. The programs of the Councils on Drugs, Foods and Nutrition, and Medical Physics have been overhauled; the Council on Medical Education and Hospitals is leading the Nation in exploring the problems of tomorrow's medical students. The new Research Foundation will add a new dimension to our efforts in these areas.

In other areas action is being taken:

Recently AMA adopted a short version of our traditional Principles of Medical Ethics—designed to provide every physician with a concise set of basic precepts to guide his behavior.

The Trustees have approved a program to remodel and air-condition the headquarters building in Chicago so that AMA's 650 employees can serve the profession and the public better.

A revolutionary new program to bring medical news to every physician has been approved. Called *AMA News*, this bi-weekly periodical will soon be going from AMA headquarters in Chicago to our entire membership. It will meet a need that has been recognized in every medical society and by most members—the need for better communication between AMA and its individual members. The *AMA News* will be designed for quick, easy reading of organization news and socioeconomic material, presented in a "newsy" and readable fashion. It should be one of AMA's most constructive contributions to internal communication and organizational efficiency.

These specific examples of AMA as a living and dynamic institution are a few of the many that could be noted. Our continued prestige and leadership, however, can be assured only if we sustain AMA's basic strengths—the basic strengths of professional men: high professional standards, valid policies based on sound research and knowledge, positive promotion of the general welfare, and vigorous enunciation and support of our fundamental ethical principles.

F. J. L. Blasingame, M.D.
General Manager, American Medical Association

THE ANNUAL CANCER CRUSADE

Each year, by Presidential Proclamation, April is designated as Cancer Control Month. Although cancer control efforts are not limited to this month alone, the designation places sufficient emphasis on all such efforts to bring them to the peak for the year. During this month the American Cancer Society conducts its annual crusade, which, most certainly, is the greatest single force responsible for this great increase in cancer control effort. That this increase is real can be easily measured by most physicians in the increased numbers of patients presenting themselves for "check-ups" in April and the few months thereafter. Therefore, it is not only for the sake of improving community health, or of helping his neighbor, but also of helping himself, that each physician should participate in some manner in the annual Cancer Crusade.

The American Cancer Society's Annual April Cancer Crusade has a twofold purpose: (1) to raise money to support its threefold program of service, education and research, and (2) to deliver to as many persons as possible the educational information which each person must have if he is to do his part in giving himself a maximum of protection against succumbing to cancer himself. Cancer still remains a disease which can be treated effectively in most instances only if a properly educated patient takes himself to a properly trained physician at the opportune time. Therefore, during this month, each physician can help in making the crusade a success not only by contributing money to the campaign but by reviewing his own medical practices to be sure that each potential or actual cancer patient he sees is receiving the best available advice and information, as well as medical care. Each physician can and should participate in both aspects of the crusade.

Most physicians are interested not in cancer but in a solution to the problems which confront cancer patients. The American Cancer Society has the same interests and through its threefold program tries to see that every actual or potential cancer patient receives the best that is available to meet his problem.

During this year, as a special project, emphasis will be placed on the problems which face women who may have or will develop cancer of the uterine cervix. With the availability of the uterine cytology tests (and there are enough good pathology laboratories in this city to meet the demands of all physicians), it has become possible for all physicians to detect the beginnings of uterine cervical cancer in all women whom they will examine adequately. Cervix cancer, treated in its incipient stage, is essentially 100 per cent curable. With these facts in mind, the American Cancer Society has produced an excellent motion picture entitled "Time and Two Women," which is designed to be shown to audiences of women in order to instruct each one as to her own role in preventing her losing her life from such a cancer. This film will be presented in Washington to as many audiences of women as possible during this year. This program is one of the best examples of how the American Cancer Society is making progress in controlling cancer.

With support from its research funds, certain aspects of the vaginal cytology studies were carried out. With funds from its educational budget the film, "Time and Two Women," has been produced and will be shown to many women. With the help of funds from its service budget the test is made available to all women. That the program is and will be effective is demonstrated by the fact that, where adequate records are available, the mortality rate from cancer of the cervix is already dropping.

The American Cancer Society is deeply appreciative of the support previously given by many physicians. It is hoped that this support will continue and increase both in terms of monetary contributions as well as of more active participation in the Cancer Society programs.

CALVIN T. KLOPP, M.D.
President, District of Columbia Division,
American Cancer Society

THE EVALUATION OF RECURRENCES OF MALIGNANT NEOPLASMS

In the minds of the laity, and to a less extent of some members of the medical profession, the possibility of recurrence of malignancy is ever-present in one who has been its victim, notwithstanding an excellent prognosis warranted by the nature of the lesion and the surgery involved. This attitude may be the legacy of the old cliché of the orthopedists, "Once an osteo, always an osteo," having reference to osteomyelitis. The differentiation between recurrence and a second or third invasion of cancer is not a simple one but demands serious and careful consideration, since a human life may depend upon the decision. Because a patient has had a malignant growth removed and becomes afflicted with a similar neoplasm, it does not follow that there is a relation between the two, unless certain postulates are established. Even if the same pathologic pattern exists, it does not eliminate the possibility of unrelated entities. It is not uncommon to successfully remove a carcinoma of a breast and a few years later do a similar operation upon the other breast, followed by 5 years or more of freedom from cancer. Such a case is an example of separate and unrelated invasion of cancer, to which the word "multicentricity" is applicable.

It is almost axiomatic to accept as a recurrence the reappearance of cancer within a few years after the primary lesion has been apparently successfully treated. We are prone to lose sight of the fact that cancer can be classified as a constitutional disease of unknown etiology in most instances. Tracing its course to remote areas from the primary site by way of the lymphatic or vascular channels is often more of a guess than a demonstrated fact. Not too long ago it was believed that the transmission or dissemination of cancer, particularly of the breast, was by the way of the lymphatics alone, but the presence of cancer cells in the efferent blood vessels dispelled this illusion and explained osseous invasion of the spine, pelvis, skull, and other parts.

When a growth reappears and can be traced through lymphatics and veins or found at the site of the surgical removal, or contiguous to it, the diagnosis of recurrence is acceptable. But when a growth appears at a remote anatomic site from the primary disease, there can always be a reasonable doubt about the relation between the two. A patient who has been fortunate enough to have had a 5-year cure is not immune to cancer, and may suffer another invasion of the same or dissimilar type, and could again have a 5-year cure. It would be a tragic error to assume that the second invasion was a recurrence and deprive him of a possible cure. Every surgeon of wide experience has had occasion to observe patients who have had the second, the third, and rarely the fourth occurrence of a neoplasm as separate and distinct lesions.

An optimistic view should be taken of the prognosis in those patients who have had a cure of cancer and who return with another growth. The possibility of another primary tumor should be weighed before a hasty conclusion is reached.

Economics may enter into this picture. Hospitalization insurance is carried by the majority of patients at present, and in some of the contracts payment cannot be obtained for hospital care if the disease is a recurring one, whereas a second invasion, not related to the first, would be compensable. The word "metastasis" has a gloomy connotation and should not be used loosely. It implies an incurable condition. We should proceed to evaluate every sign and symptom, employ all recognized tests and methods of examination, and establish a workable diagnosis prior to commitments referable to treatment. No doubt there are cases labeled "metastases" that are erroneously so designated and are not related to the primary disease. They are amenable to treatment. The percentage of such cases may be small, but the reward for checking the error is not insignificant either to the patient or his physician.

C. S. W.

In and Out of Focus

BY THE OBSERVER

The "Crystal Ball" Committee

Most of us are geared to the high-speed civilization in which we live. We are on the move constantly, whether it be at work or play. It is to be expected then that there is little time—or as a matter of fact, desire—for a more contemplative existence. Lost to us therefore is the significance for the future of much which goes on about us daily.

That, in essence, was the thought back of the suggestion made by Dr. Joseph S. Lawrence, former Director of the AMA's Washington Office, who is now active in the Society's affairs. Dr. Lawrence proposed that the Society establish a committee composed of physicians of a more philosophic turn of mind, who would, on occasion, set aside their daily tasks for a more detached look at current medical problems and their implications for the future. It was Dr. Lawrence's belief that by this process the committee could in time come up with some worthwhile recommendations. If this objective were realized, even in a modest degree, the committee would more than justify its existence.

Impressed with the proposal, the Executive Board gave approval to the creation of what is designated the Committee on Medical Philosophy. Dr. Lawrence was appointed Chairman, and Drs. Wallace M. Yater, Charles Stanley White, and Irving Burka, members. It is contemplated that additional members will be added.

Dr. Lawrence, who facetiously speaks of the new committee as the "Crystal Ball" Committee, is well aware of the road blocks in the way of its progress. He knows that even the appointees serving with him are not too optimistic about its possibilities. He is aware of their reluctance to take time out of their busy day to meditate on the larger problems of medicine. They are, after all, primarily men of action. If they do find it possible to devote the necessary time, will it result in more than pleasant and interesting conversation? Where does one begin an undertaking of this kind, for there is no precedent? If the Committee comes up with a promising idea, what is done with it? Is the whole project too visionary?

These are natural questions which arise in minds of a group engaging in a venture having little direct bearing on day-to-day problems. Perhaps the Committee will not accomplish what Dr. Lawrence hopes for, but it is certainly worth a real try. Much will depend on the ability and willingness of the participants to sacrifice the time necessary, and once committed to an idea, to see it through.

If the Committee is looking for a suggestion, your Observer has one to offer. It might well begin by weighing the effect and the portent of the "third party" in medicine. The medical profession, which is doing a lot of fuzzy and unrealistic thinking on this subject, would benefit greatly by searching inquiry.

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"...Quiet Men..."

Some weeks ago a well known American writer was interviewed on television. Disillusioned and cynical, he was a gloomy figure. Ninety-nine and nine-tenths of our people, he said, were interested only in the almighty dollar. Ideals in this country were at an all-time low. Only the naïve had faith in religion. In his opinion, the United States had become a nation of conformists who feared above all else to vary from the accepted thought and behavior pattern. Old age, he said, was "horrible" and those of advanced years who did not admit it were dishonest.

In sharp contrast to this hopeless man, your Observer can think of no better example than

Dr. Janvier W. Lindsay, a Life member of the Society now retired and living at Lewes, Delaware. Recently Dr. Lindsay wrote a book which he entitled, "Ph. D.: the Philosophy of a Doctor." In this modest little volume he exudes calm and abiding faith in his fellows and in his religion. He typifies the "Quiet Men" to whom he refers in the chapter entitled "The Bedside Manner." Here he writes of the physician:

> ". . . If he be true to his profession, he counts himself among the 'quiet men'—scientists, ministers, social workers, teachers, yes, politicians. These are dedicated not to some narrow cause of a few, but to the good of all as they practice the technic *by* which we live, in the practice of the art, and strive for the culture *for* which we live."

Speaking to a colleague with whom he had long been associated, Dr. Lindsay has these observations to make:

> "The Doctor was not surprised when one of his associates looked somewhat dubiously on his being placed, by name, in the company of the 'Great Minds' peopling our philosophy. But the mind of such, patiently waiting at the bedside, calmly watching one desperately ill and skilfully directing treatment based on the knowledge acquired by long years of preparation, and knowing when he turns away, that he has not failed the sick and his family, is no alien among these 'Minds.' The profession of medicine is, indeed, a democracy, comparable in its composition to those in all the professions, sciences, arts and industries, for it is based upon the conviction that there are extraordinary possibilities in ordinary people. It is these people who, prepared and ready, become the extraordinary ones as they meet the special challenge. It is the author's hope that his younger colleague will learn early to cultivate the habit of identifying, in his mind, the names of the men and women with whom he daily works, who personify this truth, a truth which will make its demands upon his own service throughout his life."

In a more reflective vein the author writes,

> "He [Dr. Lindsay] has tried to visualize a consistent purpose in his professional activities. He has sought to evaluate his efforts to attain this purpose in their relation to the lives of his fellow men, and hopes that when he has reviewed the seemingly scattered and unconnected details he will discover a satisfying pattern in which material, motives and beliefs will be evident and reasonable. In this pattern will be woven the dreams he has tried to make Truth—his philosophy. Surely no setting could be more appropriate than the study in the Doctor's home, looking into the living room, as he watches the panorama of profession and life as a whole. Here, surrounded by his books and paraphernalia, close to real life, in a sympathetic atmosphere, he may meet many an 'illusive guest'; patient, colleague, men and women of learning in many fields, men and women unlearned and uncultured, in whose lives deep-meaning lessons may be read. For it would be the desire of the Doctor to point to these guests as the real builders of his philosophy, the ideals of thought and action he has learned from them by precept and example."

In the course of his philosophical literary journey, Dr. Lindsay relates the following which sums up what he considers the great challenge to all who work in the health field.

> "A famous orchestra leader, conducting a rehearsal, suddenly dropped his baton as the music rose to a grand climax and, waiting for silence, asked, 'Where's the piccolo?' He, indeed, was the greater leader for knowing and making known the need of the modest piccolo, notwithstanding the mighty strings, drums and brasses. So each physician, nurse, attendant, and administrator must play his part in the symphony that tells the story of the healing art and science. The seemingly infinitesimal contribution of any of these, as well as of the layman, may well be to unlock the long sought truth. And let us not forget that among these laymen, the patient is the most important of all, for he is truly the first in the procession that inspired Ghandi to exclaim: 'There go the people; I must hurry after them, for I am their leader.' "

Your Observer has known Dr. Lindsay for many years. On first acquaintance he was certain that this quiet, soft-spoken man was a completely dedicated physician. This has been confirmed by the passing years and by his book.

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There Are Controls

One of the complaints made against organized medicine is that it doesn't do anything about dishonest and incompetent doctors in its ranks. While the situation leaves something to be desired, the fact is that much more is being done than the public and some of the medical profession realize.

Controls, in the broad sense, take over before the prospective doctor enters medical school. All applicants are carefully screened by school authorities in an effort to eliminate the inadequate and the morally and emotionally unfit. Nothing is perfect, and a few undesirables are accepted. Fortunately, some of them fall by the wayside during their school years.

Unless there is gross misbehavior, defects which develop during internships and residencies are overlooked. It is too late then to correct mistakes that have been made in the selection of an individual for a medical career. However, if he is too difficult, or steps over the line of propriety too often, the word goes out to the profession to be wary.

Upon completion of their training, young doctors intending to do private practice apply for a license. A few do so during their residencies. If the neophyte decides to apply for a license in the District of Columbia, he must be a graduate of a Class A medical school, have at least a 1-year hospital internship, and pass an examination in the basic sciences and medicine. Finally, he must be of good reputation, personally and professionally. If he meets these qualifications satisfactorily, he is licensed.

Once granted the privilege to practice medicine by the District's Commission on Licensure, he is on his own where the conduct of his practice is concerned. Little control is exercised over him unless he is guilty of gross unprofessional behavior or is convicted of a felony in a court of competent jurisdiction.

There are, of course, physicians licensed in the District by reciprocity. These are admitted from other states without examination providing the states from which they come have the same standards and requirements for licensure as the District. Here, too, a careful examination is made by the Commission as to the professional reputation and character of the individual. Some applicants, on the basis of the Commission's investigation, have been refused a license in the District.

Now what does organized medicine have to do with the various stages through which a doctor must go before he can practice medicine? First of all, the AMA's Council on Medical Education and Hospitals is concerned with the standards maintained by medical schools. These, with Council guidance, are being raised higher and higher so that, as one medical educator said to your Observer recently, many in his class of a few years ago would not now be admitted to his school. Only applicants who are graduates of medical schools recognized by the Council are eligible for licensure in the District of Columbia. The Joint Commission on the Accreditation of Hospitals, of which the AMA is a member, is very much concerned with the quality of the interns and residents and their performance in the hospitals. To remain on the accredited list a hospital must maintain certain standards with respect to its medical service.

One of the first steps taken by the majority of physicians entering practice is to apply for membership in the local medical society. This is certainly true in the District of Columbia, where all but a very few belong. How well are applicants screened on admittance? To what extent are they subject to discipline? When the situation justifies, does the Society take action against them? If action is taken, how effective is it?

The Society's Board of Credentials screens applicants for membership more carefully than is generally realized. There are certain requirements which each applicant must meet. For example, an applicant for Active or full membership must be licensed to practice in the District of Columbia. If he comes from another state and has obtained a license in the District by reciprocity, the Society communicates with the county medical society where he was formerly situated to determine his professional reputation. If it is learned that the applicant's professional standing was questionable, and there was a real basis for it, he is not acceptable unless there is satisfactory evidence to the contrary.

Once elected to membership, there is no follow-up on the manner in which he conducts his practice unless a complaint against him is received by the Grievance Committee from a patient or another physician. A prompt investigation is then made, the physician being notified and provided a copy of the complaint. He is asked to reply, and upon receipt of his answer the Committee reviews the correspondence. It may or may not pass judgment on the validity of the complaint without interviewing parties involved. In any event, when it has come to a decision, the Committee notifies both parties. Usually an amicable settlement is reached. Where this is not possible, the Committee submits its recommendations to the Executive Board.

Members have been disciplined by the Board on recommendation of the Grievance Committee by being censured, suspended, or expelled. Very few have received the extreme penalty except for serious offenses. Whether the disciplinary measures applied be light or heavy, few physicians experiencing them wish them repeated. In other words, regardless of the seriousness of the charge, the fact that his peers sit in judgment of him is highly embarrassing. There is still no mechanism by which standards of medical practice are "policed" except in the hospitals.

Hospital medical staffs, of course, do exercise effective control over the quality of medical care rendered in their institutions. They determine whether or not a physician is capable of performing the services for which he claims special qualifications.

Obviously, much more can be said on this subject. What it boils down to is this: More effective controls over physicians are exercised by medical organizations than is generally recognized. However, there are deficiencies which should receive careful attention, the principal one being in the quality of medical service outside hospitals.

Medical Assistants

In common with the individuals engaged in other pursuits, those who are in one way or another employed in the medical field belong to some organization identified with their particular skill. The one exception has been the women employed by individual or groups of physicians as secretaries, nurses, receptionists, and assistants. This situation is in the process of being remedied, organizations having been formed in 17 states which have affiliated themselves with what is known as the American Association of Medical Assistants. The national organization now has 5,000 members, and according to Miss Thelma Greene, Chairman of the Membership Committee, has the enthusiastic support of their doctor-employers. The purposes of the Association, as stated in its constitution are:

"1. To inspire its members to render honest, loyal and more efficient service to the profession and to the public which they serve.

"2. To strive at all times to coöperate with the medical profession in improving public relations.

"3. To render educational service for the self-improvement of its members and to stimulate a feeling of fellowship and coöperation among the societies.

"4. To encourage and assist all unorganized medical assistants in forming local and state societies.

"5. This organization is hereby declared to be non-profit. It is not nor shall it ever become a trade union or collective bargaining agency."

"In addition to opportunities for continued education," Miss Greene writes prospective members, "membership brings you assured friendship and fellowship with others engaged in the same profession not only in your immediate locality, but extended to include any city with an established Medical Assistants' Association. Within the very near future we expect to offer our members a very attractive group insurance program, with coverage for disability, health and accident, surgical and hospital expense, at a considerable saving over anything now available to the medical assistant."

Several years ago the officers of the District Medical Society, having received a number of calls from women employed in physicians' offices indicating their interest in forming an organization, endeavored to bring about its establishment. However, it was soon apparent that interest in such a group was decidedly lukewarm, and the matter was dropped.

Due to a number of recent inquiries, this subject has been revived. At its meeting on July 22, 1957, the Executive Board voted to canvass the members of the Society to ascertain their attitude toward the organization of a medical assistants' association. This communication will have been sent to members by the time these comments appear. It will be interesting to learn what the physician-employers think of the proposal.

In the meantime, those employed in physicians' offices who are interested might address a communication to the Secretary of the Society setting forth views with respect to the proposal.

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A Label Sticks

The AMA's opinion poll of some two years ago revealed that the public generally looked favorably upon the Association and its activities. Although only 50 per cent of those interviewed had heard of the Association, this was gratifying news to all the laborers in organized medicine's vineyard.

However, among many of the "laborers" there were residues of misgivings because of the attitude of many influential lay individuals with whom they came in contact. Although not sizable as to number, they were vocally critical of organized medicine. The most frequent charges made by them against the AMA are that it is reactionary and that it has consistently opposed progress, especially in the medical socioeconomic field. The most frequent label pinned on the Association by these individuals is "aginners." For many people who know little, if anything, about the organization, they have made this label stick.

In making these observations, there is no intention of minimizing the findings of the AMA pollsters that public opinion is favorable to organized medicine. The fact remains, however, that a surprisingly large number of people seem to have fixed ideas about the AMA which are hardly complimentary or consistent with the facts. Inquiry reveals that a number of physicians in our own city have made this discovery.

An example of the views one hears expressed is the following: Your Observer was a guest at dinner at a neighbor's home on an evening some weeks ago. A man of some prominence, whom he met for the first time, upon discovering his occupation, belabored the AMA for its opposition to progressive health measures. His particular criticism was leveled at the restrictions which the Association had placed on Blue Shield medical care plans, limiting benefits to subscribers and increasing costs to them. Your Observer explained, as best he could, the unfairness of this criticism. He pointed out that the AMA had nothing to do with the conduct of these plans, benefits being determined by their management on the basis of experience. Furthermore, the Association had lent every encouragement to voluntary health insurance programs.

The above incident, with variations, could be multiplied many, many times. Praise for the Association where one might expect it, on the other hand, has frequently been scant.

Critics of the Association do not, of course, limit their comments to social gatherings. Recently there appeared in a Washington newspaper a letter to the Editor in which the lack of funds for a new building to house the National Library of Medicine was deplored. The writer stated, "If the American Medical Association were apprised of the pressing need for adequate quarters to house the world's largest medical library, perhaps that omnipotent organization might be persuaded to divert to such a worthy cause the money that it will expend this year to

"MEDICAL AMERICA"—WASHINGTON, D. C.

THEODORE WIPRUD (right), Secretary of the District Medical Society, accepts from a representative of SCHERING CORPORATION, of Bloomfield, New Jersey, the District of Columbia map of Medical America. This is one of a series of maps, in color, portraying the highlights in the historical development of American medicine. To insure accuracy, Schering had all items proposed for inclusion in these maps passed upon by the medical society in each region, the American Medical Association, the National Library of Medicine, as well as state and university libraries.

advertise and lobby against national health programs and free polio shots for children . . . .

"After all, if the AMA permits Congress to provide the necessary money, it will be one more step toward the 'creeping socialism' against which the medical profession's sacrosanct organization has been waging such a relentless fight."

Obviously, the author has no knowledge of the truth, or he would not have written as he did. The fact is that for more than 20 years the AMA has by resolution and by appearances of its representatives before Congressional committees urged the need—in fact, the critical need—for adequate quarters to house irreplaceable books and documents now in danger of destruction by fire.

There is always the danger of magnifying the significance of personal experiences with respect to national problems. However, incidents of the kind described here have been experienced by medical society officials in various parts of the country who believe it is a pretty good indication that the AMA's critics have firmly implanted their ideas in the minds of many people who should be the Association's friends.

The fact that the AMA is acknowledged to be the largest, most influential professional body in the world undoubtedly accounts for its being a target of criticism. Admittedly, the Association has made its quota of mistakes, which the critics have done their best to magnify. Minimized are the accomplishments, which have been considerable.

Surprisingly, there are many people, inside and outside the profession, who think of the AMA as a large corporation run by a small governing body in Chicago. They are not impressed by the explanation that its policies are directed by a House of Delegates in which every state and territory of the United States is represented. They smile knowingly when told that the Board of Trustees, powerful though it is, cannot without jeopardy to itself act contrary to the position taken by the House on broad and vital issues. Nevertheless, it is true.

It has long been recognized by those familiar with organized medicine that the AMA's constituent state medical societies and their county affiliates are generally more progressive than the parent organization. This is not surprising because any body responsible for national policy is inclined to be more conservative than if its responsibilities are of a regional or local nature.

Times are, of course, changing for the AMA as they are for every other organization. The younger element is taking over in its high councils and will have a tremendous influence on future policies. That is true of both the House of Delegates and the Board of Trustees. One can confidently expect a more dynamic program in the future which will more adequately meet the needs and demands of the day.

Whether the label that the AMA has acquired in the minds of many lay leaders can or will be removed remains to be seen. It is hazardous to prophesy, but the vigorous efforts now being made by the Association to bring about a more sympathetic understanding on the part of the public, it is believed, will bring the desired result.

T. W.

STATEMENT ON ANIMAL EXPERIMENTS BY STUDENTS*

Much of man's progress depends upon increased understanding of the phenomena of life. The study of life—biology—is the foundation of agriculture, medicine, and even the social sciences. Therefore, the development of skilled biological scientists is very important to the fate of mankind.

The student in biology studies living things. It is possible, of course, to learn some things about biology from books just as it is possible to learn some things about swimming from books. But one cannot become a biologist in a library any more than one can learn to swim without water. First-hand acquaintance with the subject is the key to proficiency in any field.

Students studying living creatures seldom lead the world to new discoveries, but direct contact with life does deepen their understanding and their fascination. To say that students must be able to make revolutionary discoveries before making their first direct observations in biology is like saying that a person should not practice swimming until he is a championship swimmer.

The policy recommendation of the National Society for Medical Research is that interest in the infinite mysteries of life processes should be encouraged, not discouraged. Youngsters should be encouraged to explore nature first-hand. They should be encouraged in any interest they might have in raising, caring for, and learning about plants and animals. This interest and talent in biology is urgently needed for tomorrow's jobs in all of the biological sciences.

Humane consideration must, of course, be given to all animals studied. Toward this end the National Society for Medical Research prepared 2 years ago for the Science Clubs of America the following rules governing the care of experimental animals:

1. The basic aim of scientific studies that involve animals is to achieve an understanding of, and deep respect for, life itself and for all that is living.
2. A qualified adult supervisor must assume primary responsibility for the purposes and conditions of any experiment that involves living animals.
3. A trained biological scientist, physician, dentist, or veterinarian must directly supervise any experiment that involves anesthetic drugs or surgical procedure.
4. Experiments on living animals shall be limited to the use of invertebrates, other non-mammals, and such small mammals as mice, hamsters, guinea pigs, or rabbits. An exception to the above rule is in the case of farm animals, in which case the rules of the local 4-H Club shall be followed. No experiment shall be conducted that involves infection with pathogenic organisms or obviously mutilating surgical procedures, unless the animal is humanely disposed of at the end of the experiment. Any such experiment must be performed with the animal under appropriate anesthesia if pain is involved, and the experiment must be of the briefest possible duration.
5. The comfort of the animal used in any study shall be a prime concern of the student investigator. Gentle handling, proper feeding, and provision of appropriate sanitary quarters shall at all times be strictly observed. Any experiment in nutritional deficiency may proceed only to the point where definite symptoms of the de-

(Continued on page 220)

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* Adopted by the Board of Directors of the National Society for Medical Research at its 11th Annual Meeting in Chicago, February 11, 1958.

CONTINUING NEED FOR POLIOMYELITIS VACCINATION

In a letter addressed to the President of both the American Academy of Pediatrics and the American Academy of General Practice, Dr. Leroy E. Burney, Surgeon General of the Public Health Service, called attention to the recent report from the Communicable Diseases Center of the Public Health Service concerning age-specific poliomyelitis attack rates in the United States during 1957.

The report presents preliminary figures for 1957 through October (see table 1). Estimated attack rates for paralytic poliomyelitis by age indicate that during 1957 children up through age 4 experienced substantially higher attack rates than the balance of the population, just as was the case in 1956. All physicians have been aware of the need for special effort in providing vaccinations for preschool children. However, these preliminary data for 1957 indicate that even greater emphasis should be concentrated in vaccination programs for the younger children.

TABLE 1

*Age-specific Attack Rates in the United States**

January–October, 1957†

Age Group	Population (1000's)‡	Cases		Rate/100,000	
		Paralytic	Nonparalytic	Paralytic	Nonparalytic
<1	3,455	117	35	3.4	1.0
1	3,455	198	54	5.7	1.6
2	3,415	188	72	5.5	2.1
3	3,349	124	83	3.7	2.5
4	3,269	111	118	3.4	3.6
5	3,186	89	116	2.8	3.6
6	3,126	69	136	2.2	4.4
7	3,011	53	149	1.8	4.9
8	3,030	55	118	1.8	3.9
9	3,026	30	97	1.0	3.2
10	3,259	28	100	.9	3.1
11	2,362	28	74	1.2	3.1
12	2,341	28	73	1.2	3.1
13	2,354	26	71	1.1	3.0
14	2,495	25	54	1.0	2.2
15–19	9,861	99	247	1.0	2.5
20–24	8,767	98	200	1.1	2.3
25–29	9,717	106	215	1.1	2.2
30–34	10,503	69	108	.7	1.0
35–39	10,175	37	59	.4	.6
40+	51,984	43	44	.1–	.1–
TOTAL	146,140	1,621	2,223	1.1	1.5

* From the Poliomyelitis Surveillance Report of the Communicable Disease Center in Atlanta, Georgia.

† January–September data from 43 states and the District of Columbia. October data from 33 states.

‡ Preliminary crude total population estimates for 43 states; age-specific estimates for years 1–14 arbitrarily obtained by moving 1956 estimates forward one year and age-group estimates obtained by increasing 1956 estimates proportionate to the 1955–1956 increase. For under one year, the 1956 estimate was used.

In table 1 it will be noted that the highest attack rate of all, 5.7 per 100,000, was experienced by children aged 1 year, with the next highest rate of 5.5 in children aged 2. For all children through age 4 the attack rate averaged 4.4 per 100,000, whereas much lower attack rates were apparent in older age groups. Thus, the estimated rate for age 5–19 was 1.4 and for age 20–39, 0.8.

Indications are that the large majority of paralytic cases are occurring in nonvaccinated persons.

The Public Health Service, in coöperation with the American Medical Association, National Foundation for Infantile Paralysis, and other groups, is planning an intensification of its efforts to promote vaccination of all persons up through the age of 40 during the spring months. Physicians caring for younger children may wish to stress the importance of immunization of parents also.

In his letter Dr. Burney assured medical organizations that the Public Health Service stands ready to assist in any special campaign which they may wish to undertake in promoting the use of poliomyelitis vaccine as a health measure.

Mrs. Katherine B. Oettinger, Chief of the Children's Bureau, will use the facilities of the Bureau to bring the facts to the attention of parents. "It is important, however, that parents themselves take the initiative in having these younger children vaccinated and getting vaccinated themselves," Dr. Burney said, and added, "The time to do so is now—in advance of the polio season."

Latest reports to the Service show that there is an ample supply of vaccine, with over 30 million c.c. on hand. Of 111 million persons in the 0–40 age group, over 40 million have not as yet started their series of shots.

THE PHYSICIAN AND VOLUNTARY HEALTH INSURANCE*

LOUIS A. ORSINI

Assistant Director, Information and Research Division, Health Insurance Association of America

Voluntary health insurance is emerging from an era of growth which has rapidly narrowed the gap between the number of individuals owning some form of health insurance and the total insurable population in the United States. At the end of 1956, 116 million people were insured against the expense of hospital care with 101 million also owning coverage providing reimbursement for surgeons' fees. The total population, at that time, was estimated to be 169 million. In order to measure the impact of the various voluntary health insurance agencies in marketing their products and the size of the task still confronting them in this area, the total population figure must be interpreted in terms of those who are potentially insurable. Thus, the overall figure must immediately be reduced by 11 million reflecting population groups (public assistance recipients, military personnel and their dependents, beneficiaries of the Public Health Service, Indians and Alaskan natives) who have the major portion of their medical care costs directly financed by Government.

In addition, there are individuals who may be eligible for some free care stemming from their veteran status who rely on this entitlement in placing a lower priority on the purchase of health insurance through their own initiative. This voluntarily uninsured group is also comprised of those who elect and are able to finance such care from their own financial resources. While this segment of the population is difficult to measure precisely, since it is determined by motivation, spending habits and other personal characteristics, it nevertheless must be borne in mind in pursuing this evaluation.

This era has been generally characterized by coverages designed to meet the expenses of defined hospital and medical services (e.g., in-patient hospital care, surgeon's fees, doctor's visits, diagnostic X-ray and laboratory procedures) with specific dollar limits for each. Most of the health insurance presently in force follows this basic pattern, demonstrating that it is unquestionably filling an important insurance need for the public.

We have also experienced during this period dramatic changes in the provision of medical care involving technological changes in hospital facilities, new medical and surgical technics, and the development and use of expensive drugs, all of which, we gratefully acknowledge, have raised our standards of the quantity and quality of good medical care to the highest level. This development has pointedly brought to the fore the need for having health insurance coverages go beyond the scope of basic coverages in order to provide the public with a mechanism for financing the major portion of the cost of such improved care.

This need has evolved as the other major objective of voluntary health insurance. Any evaluation of the extent to which we are now filling this need must start with the answer to the question, "How much of the family's medical bill is it economically practical to insure?" You will find that opinions answering this question vary considerably not only among insurance agencies themselves but also among purchasers of health insurance. This variety is good since it assures the public of a wide choice of alternatives and argues for the soundness of the pattern that will ultimately emerge.

In seeking the answer to this question, the insurance industry has selected an experimental coverage pattern termed "Major Medical." While of relatively recent origin, this newest form of health insurance has nevertheless already achieved a high degree of public acceptance as evidenced by the fact that 9 million were covered by this form of insurance at the end of 1956. Its appeal from the public's standpoint lies in its flexibility in covering a broad range of medical services and in its high dollar limits, which enable the insurance to absorb most of the financial impact of severe illness.

Major Medical coverages may be used from the buyer's standpoint as either a supplement to base hospital or surgical expense plans or as a replacement for the base plan.

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* This article is condensed from an address made before the Public Health Committee of the Washington Board of Trade, December 11, 1957. The complete paper was presented at the 165th Annual Meeting of the Connecticut State Medical Society, May 1, 1957, and published in the *Connecticut State Medical Journal*, 1958, **22,** 43.

CHARGES COVERED

The usual form of Major Medical coverage provides benefits for the following expenses when prescribed by a legally qualified physician for treatment in or outside the hospital, subject to a deductible sum, a coinsurance factor and a high maximum limit:

1. Physician or surgeon charges
2. Hospital charges
3. Charges made by a registered nurse
4. Customary charges for the following services and supplies: drugs, medicines, anesthetics, X-ray, artificial limbs, etc.

In addition to the above, normal maternity and delivery expenses may be optionally included.

THE DEDUCTIBLE

The insured must pay the initial cost of covered medical expenses up to a specified amount before reimbursement under the Major Medical plan commences. This is called the deductible. The deductible amount may be as low as $25.00 or $50.00, where the Major Medical is to replace a base plan, or a variable higher amount, where the coverage is tailored to supplement a base plan.

The deductible eliminates the smaller, more frequent claims that are relatively expensive to handle administratively and which, although they represent so large an element of cost in the aggregate, can be readily budgeted by the insured. It is possible in this way for the premiums to remain at an attractive level and for the insurance dollar to be used to the best advantage for the coverage of the larger expenses that can be such a hardship to the individual.

COINSURANCE

Major Medical coverage reimburses for 75 or 80 per cent of the expenses above the deductible up to a maximum limit, the insured employee sharing in the payment to the extent of 20 or 25 per cent. This is termed coinsurance. It is based on the sound premise that a financial incentive for the insured to be concerned over the price, kind and volume of the medical services rendered is essential if premium costs are to remain at reasonable levels.

COST FACTORS

Experts in the group insurance field feel that it is still too early to tell what the final premium rate structure for Major Medical will be.

The ultimate premium rate structure is further complicated by the fact that Major Medical plans, particularly those with low deductibles, will by their comprehensive scope be sensitive to increasing hospital costs, which are expected to increase at about 5 per cent annually for many years.

The need for comprehensive health insurance protection is well established. Major Medical is one of several alternatives available to the public. The fact that Major Medical recognizes that primary responsibility for the quality of care rests with the providers of service and otherwise supports your principles of the free practice of medicine establishes a relationship between the success of Major Medical and your own self interest. If you accept this analogy and the economic fact that survival of the Major Medical approach will be determined by its ultimate cost to the public, then the physician's relationship to that cost evolves as a prime consideration to you.

I have previously pointed out that the deductible and coinsurance principles in Major Medical establish financial incentives for the insured, which, if they are effective, will enable cost to remain at a reasonable level. However, in order for them to be effective, there must be complete understanding and support among members of the medical profession for these principles. Furthermore, it must be recognized that beyond this point the practicing physician or surgeon has primary responsibility in controlling the quantity of medical services and establishing the fee for his services. To this extent, then, he directly oversees this part of the premium cost to the public. There is no intent to interfere in the normal patient-physician relationship as it affects this quantity and cost of service. However, it is vitally important that both considerations be resolved on criteria other than the existence or amount of insurance.

The critics of Major Medical contend that the fact that it relies on financial incentives, such as deductibles and coinsurance factors and the medical profession's enlightened self interest, rather than on the built-in controls which stem from the lower dollar limits and narrower scope of insured services, under the so-called "basic" forms of protection, will in the long run serve to inflate the cost of medical care and ultimately price this coverage out of the market.

It would be naïve to brush off this latent potential for it is indeed an area of vulnerability. The integrity of the medical profession makes me confident that it will not become a reality. However, we must respond to this challenge together, with intelligence, a full recognition of our relative responsibilities, and a willingness to deal with them forthrightly.

The insurance aspect of financing medical care from an overall viewpoint must present a very complicated picture to the practicing physician due to the variations in coverage and the rapidly changing picture. A thorough understanding of different philosophies motivating different approaches is understandably difficult to achieve in today's climate with the numerous other demands on a physician's time. However, the increasingly high percentage of physician services which are financed through such insurance arrangements (insurance companies alone paid $465,000,000 in 1956 in reimbursement for physicians' services) and our joint responsibility to make them work most economically and effectively for the insured public indicate the desirability of developing a coöperative basis for facilitating and accelerating this understanding. To bring this about we might explore the possibility of establishing an insurance advisory committee within your medical society to meet jointly at periodic intervals with a similar group representative of the insurance industry. These meetings would serve as a forum for an exchange of information on health insurance and medical practices related thereto and provide a permanent liaison between both parties.

This would be the base on which we would build a better understanding of each other's problems and a coöperative climate for achieving their solution.

VOLUNTARY HEALTH INSURANCE—THE SALVATION OF FREE MEDICINE*

DONALD STUBBS, M.D.

President, Medical Service of the District of Columbia

Health insurance as we know it today has been dramatically demonstrated to be the best voluntary answer to the threat of compulsory methods of purveying health to the American people. Indeed, it is more firmly established than ever as the only alternative to very substantial controls of governmental origin.

The Blue Cross and Blue Shield Plans of America have been largely responsible for originating and guiding the early direction of these voluntary health programs. They have subsequently been joined by the insurance industry in establishing the enormously variable and complex pattern of current offering from which all of us are now benefiting as in any good laboratory experience.

The answer to a 3-part question emerges as the picture of health insurance as we have it here in the Washington area. What do we have, how did we get it, and where do we go from here?

Group Hospitalization, Inc., Washington's Blue Cross Plan, is 24 years old and now protects more than 740,000 people here against most, and often against practically all, hospital costs for acute illnesses. Medical Service, Inc., Washington's Blue Shield Plan, is only 10 years old but it extends coverage to more than 650,000 in the community for the costs of many physician services, especially in surgery.

These companion Plans have not only grown rapidly in the number of subscribers but each subscriber is now covered for more services than ever before. This combined broadening and deepening has been the pattern of health insurance growth since its inception.

It has always been a matter of importance that Group Hospitalization and Medical Service are controlled locally through their Boards, which are composed of outstanding, public-spirited citizens, including physicians, who serve the community interest without pay. They are responsible for the concept of "service," which is the most important special characteristic of Blue Cross and Blue Shield. Under this principle many of the services provided by both hospitals and physicians are furnished under the terms of the controlling contracts as "services" rather than as dollars presented to patients to help them buy the services themselves. Thus a fee schedule or a prior knowledge of costs has been a necessity to permit subscription rates to be as low as possible without endangering the economy of the Plans. The need to know in advance what costs will be with fair accuracy is the biggest question now confronting the growth of Major Medical insurance in the hands of Blue Cross and Blue Shield or under any commercial carrier. All groups have proper concern for the coöperation of medicine on this point.

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* A summary of the remarks made before the Public Health Committee of the Washington Board of Trade, December 11, 1957.

The history of health insurance, which is so much the history of the "Blues," is a dramatic success story of today's America. This risk was originally considered to be basically uninsurable. Accordingly, it had to be accepted first by amateurs, by local citizens willing to take a chance for their neighbors, and also it was necessary for the purveyors of the services to share in the risk. The hospitals and doctors have always been associated in a sponsorship role with Blue Cross and Blue Shield.

The pressures which forced the initiation of health insurance despite conflict with insurance principles have shifted but are greater than ever in demanding a prepayment, share-the-risk system. Our credit economy is now so broad and so firmly entrenched that we cannot expect in the foreseeable future that the average family will be able to pay even ordinary medical expenses out of current income.

The attempts to solve this complicated problem were parts of a grass-roots movement and so were extremely varied. The development of the Blue Cross and Blue Shield Plans from this base, with local control in each instance, has preserved these local variations. This is the true strength of the movement although recognition of the need to emphasize areas of uniform response is now widespread. The comparison between service and indemnity approaches has been held up for all to see. The problem of the fee schedule has been approached in many ways but real progress toward solution has been made.

Since the demand is always for more and more coverage for more and more people the basic problem continues to be economic. With the phenomenal growth of health insurance the interest of Government, local and national, has intensified rather than lessened. The need is greater to make the voluntary approach work lest it be supplanted. Clear logic now supports the thesis that the "service" approach must retain a large degree of success in order that indemnity programs may have a safe stability. This means that the salvation not only of free medicine but of free commercial health insurance is tied to the survival of a strong Blue Cross and Blue Shield.

CORRESPONDENCE

PHILADELPHIA, PA., February 11, 1958

TO MR. WIPRUD:

Because the N.D.T.I. [National Disease and Therapeutic Index] program is now beginning its third year, and because of the widespread interest it has evoked, we feel that a brief progress report to those who have had a part in its success is in order.

The acceptance of the program and its objectives by the medical profession has exceeded even our most optimistic estimates. Currently, well over 80 per cent of all doctors selected by our statistical section are agreeing to participate and, once enlisted, only a very small minority fail to report regularly for at least a year. In the past 2 years, a full quota of doctors has reported each month, for a total representation of more than 12,000 doctor days of practice. In these detailed reports are the records of some 200,000 individual patient visits.

While we are pleased with what has been accomplished, we are not planning to rest on our oars in the months and years ahead. The N.D.T.I. was planned as a vital, continuing service to the profession and the industries serving it. Our research section is working constantly to improve and refine the program, and we are carefully evaluating possible new areas of information as well as further expansion of the overall program. Enlargement of the panel of participating doctors from a random sample of some 800 in 27 areas to a full probability sample of more than a thousand in all 48 states has already been accomplished, and will be reflected in more and better statistical information.

The reception accorded our first medical report by practicing physicians, medical educators and organized medical groups has encouraged us to plan a more ambitious publication schedule for the immediate future. We expect, too, to continue to coöperate in the preparation of a limited number of highly specialized reports. The most recent of these was compiled at the request of a committee of the Council on Medical Education and Hospitals of the AMA, and others have been developed for individual medical schools and varied research programs.

The interest and assistance of officials of the AMA, the AAGP, the various specialty colleges and associations, the state, county and local medical societies, and the medical schools have been, and are greatly appreciated by all of us concerned with the N.D.T.I. We look forward to a continuing pleasant and mutually beneficial association in the future, and you may be sure that we shall keep you fully informed about all phases of the program through periodic releases and reports.

With best personal regards,

Sincerely yours,
Thomas J. Seedorff
Director of Professional Relations,
National Disease and Therapeutic Index

DR. KATZ WINS DAVIDSON AWARD

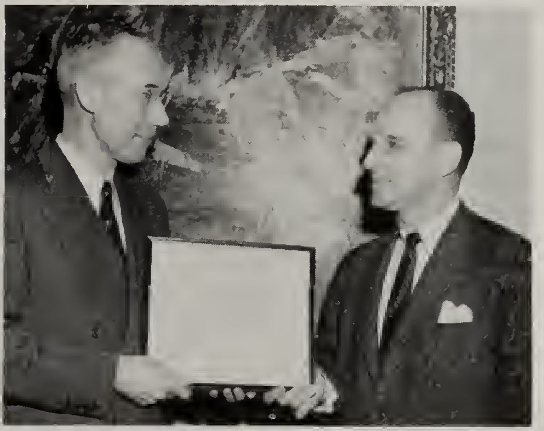
Dr. Sol Katz, who serves both Georgetown and George Washington University Schools of Medicine as Adjunct Clinical Professor of Medicine, was named winner of the first Edward Y. Davidson Award in recognition of submitting the best scientific paper published in the Medical Annals of the District of Columbia during the year 1956. The paper which won the award was entitled "Chemotherapy of Tuberculosis" and was published in two parts: Part I, "Background Factors," appeared in February, and Part II, "Practical Aspects," in March, 1956. The award carried an honorarium of $100.

At its meeting, February 25, 1957, the Executive Board voted to substitute an annual Davidson Award for the biennial Davidson Lecture. It was decided to make the first selection from papers published in the Medical Annals during 1956.

Dr. Katz received the award the last evening of the Seventh Midwinter Seminar, February 20. The certificate read as follows:

> "This certificate is issued annually to a member of the Medical Society in keeping with the spirit of the resolution adopted by the Society on May 1, 1929, in which it expressed 'its deep sense of grateful appreciation of the priceless services rendered by Dr. Edward Young Davidson in obtaining its present building and being no less interested in perpetuating this striking example of disinterested service and true loyalty from one of its members.' "

Dr. Katz, a graduate in medicine of Georgetown, interned at Georgetown Hospital. From 1940 to 1942 he was resident physician in internal medicine at D. C. General Hospital, then stayed on for three years' postgraduate study in chest diseases. He is now Chief of the Hospital's Division of Pulmonary Diseases. He is also on the hospital staffs of Georgetown, Veterans Administration (Mt. Alto), and is consultant in pulmonary diseases to the National Institutes of Health. He is a diplomate of the American Board of Internal Medicine, a Fellow of the American College of Chest Physicians, a member of the American Medical Association, American Heart Association, American Trudeau Society, and other scientific organizations. He is Associate Editor of GP, official journal of the American Academy of General Practice, and has contributed more than 100 articles to the medical literature, most of which have concerned diseases of the lung.



DR. KATZ RECEIVES DAVIDSON AWARD

Dr. Sol Katz (right) accepts the Edward Y. Davidson Award certificate from Dr. James W. Watts, President of the Medical Society.

His wife is the former Beatrice Paul; with three children, Paul, Rita and Judy, they reside at 917 Ridge Rd., Falls Church, Va.

It is contemplated that the Davidson Award will be presented in the future during the Medical Society's Annual Scientific Assembly.

On the Lighter Side

The vexing problem of taking good medical care of 25 to 30 strong-armed athletes during an active baseball season would come under the heading of pure unadulterated fun to almost every doctor who does not have the job. But to earnest, hard-working, cigar-smoking George Anthony Resta, M.D., the job means work, more work and added responsibility—and not the unadulterated fun the envious medical onlooker may think.

First of all, the season's opening obligation may mean a hurried trip from comfortable Washington to the rigors of a training camp in Florida. Now no M.D. in his right mind would want to be dragged away from his heated Washington office and practice during the cold, dreary, blustery winter weather—and made to travel all of those heavenly air miles down to Florida where the temperature is always a boring 75 or 80 degrees. That would be a sacrifice well beyond the usual call of duty. However, to be fair about it, a doctor in George A. Resta's position cannot turn down such a call, even if it came. After all, he IS the Washington Baseball Club's team physician, and as such, is under special contract to one Calvin Griffith.

Let us suppose that one or more of Calvin's $7,000- to $36,000-a-year athletes stubs his toe, or kinks his elbow a trifle. And let us suppose that the treatment of such is beyond the ken of "Doc" Lentz—then the boss puts in a long distance phone call to George Anthony Resta, M.D. and pours out his heart to poor ole self-sacrificing George. He begs George to please, pretty please, step into the very next flying machine that has its nose pointed toward Florida, and to leave all behind him and come to sunny, boring Florida to ease the pains in those high-priced athletes. Personally, I and many of my medical confreres believe this to be as pretty a piece of chicanery as we have ever seen—an imposition of the first water, a downright carnal shame, a being-taken-advantage-of situation; and besides that, it isn't cricket for a busy doctor to have to leave Washington in glorious blustery March or showery wet April just to loll around on those flea-infested sun-drenched sands of Florida. It seems to me, and many others mind you, that George Anthony Resta, M.D. should return his first contract each spring and become a hold-out at least until that weary Florida business is over and done with.

But, my friends, that isn't all of the dirty business. After the team has been put through the cotton-picking machine of spring training, and after all the inexperienced burrs are dropped by the wayside, Calvin Griffith is mean enough to make our self-sacrificing George trudge out to the Washington ballpark in his Chrysler Imperial every single day or night that the team is playing in Washington. And mind you, just to sit out there on one of those hard seats, in the boxes across from home plate! The poor fellow doesn't even have that impenetrable beautiful screen to protect his noggin from foul balls that might be propelled his way. (He gets a lot of baseballs sitting there that he has to throw back on the field because they bulge his pockets too much.)

So—after that mean ole Calvin twists his arm, he compels George to sit out there and watch the game without offering him even one cigar. And he knows how our George loves his cigars. Now I have it on good report and from reliable sources that our George is already storing up stogies for the coming baseball season.

Of course, there are moments of pure delight for our George that keep bobbing up in the midst of all those other depressing situations on the field; and those moments are when some woman faints, or when someone is taken suddenly ill. It is at that time that George has the opportunity to escape from his bondage of viewing the game and to scurry down to his dark little medical Shangri-La under the grandstand. In that cubbyhole our George can putter about with his pills and bandages to his heart's content, far away from the exciting roar of the crowd. George may miss a few dull proceedings on the field while he is buried alive in his medical snake-pit, such as Roy Sievers knocking the ole apple out of the lot with 3 mates aboard in the last of the ninth with 2 men out, and the Yankees leading 3 to 0. Or, Jim Lemon getting his third home run in a row. Or, Ed Yost making an impossible stop of a hard smash to third and nipping Mickey Mantle at first by half a step. But who on earth cares about such absurdities! After all, a

(*Continued on page 220*)

News and Personals

MEETINGS

Scientists and clinicians interested in internal medicine will converge in Philadelphia, April 24–26, to attend the **Fifth International Congress of Internal Medicine** at the Hotel Sheraton. In addition to America's leading internists, 81 foreign speakers representing 27 other nations will participate in the scientific program. Dr. T. Grier Miller, Philadelphia, President of the Congress, expressed pleasure that physicians from the Soviet Union, Czechoslovakia, Hungary, Rumania, and Poland would attend and participate in the meetings.

The scientific program will feature a number of panels and symposia. Among the latter will be one on Cardiac Diseases, presided over by Dr. William S. Middleton, Chief Medical Director of Veterans Administration. Dr. Middleton is an Honorary member of the D. C. Medical Society.

Special lecturers at the Congress will include Dr. Paul Dudley White, Boston; Dr. Charles H. Best, Toronto; Sir Russell Brain, London; Dr. Jonas Salk, Pittsburgh, and many other distinguished physicians.

Dr. Wallace M. Yater, Secretary-General of the American College of Physicians and a member of the Executive Committee for the Congress, will preside at the afternoon session of special lectures, April 25.

It is expected that most of the Congress delegates will also attend the 1958 Annual Session of the American College of Physicians, to be held in Atlantic City, April 28 to May 2, immediately following the Congress.

The Sibley Hospital Alumni Association has arranged an interesting program for its first **Alumni Day,** May 15.

Dr. Theodore E. Woodward, Professor of Medicine, University of Maryland, will lead discussion on the C.P.C.

A question-and-answer Workshop on Common Dermatologic Problems will be conducted by the following physicians: Dr. Arnold H. Gould, Assistant Clinical Professor of Dermatology, Georgetown University School of Medicine; Dr. Sidney Olansky, Associate Professor of Dermatology, Duke University; and Dr. Eugene Bereston, Assistant Professor of Dermatology, University of Maryland.

A panel discussion on "The Use and Abuse of Steroids in Medicine" will be moderated by Dr. Charles G. Zubrod of the Cancer Institute of NIH. Panelists will be: Dr. Sidney Olansky; Dr. Thomas McP. Brown, Professor of Medicine, George Washington University School of Medicine; Dr. Darrell C. Crain, Assistant Clinical Professor of Medicine, Georgetown University School of Medicine; and Dr. Azad J. Vosger, of Washington.

Dr. Monroe J. Romansky, Professor of Medicine, George Washington University School of Medicine, will present a paper on "Antibiotics," and Dr. Sol Katz, Chief of the Division of Pulmonary Diseases, D. C. General Hospital, will speak on "Pulmonary Problems in the Aged."

To commemorate the event, the first issue of the *Sibley Hospital Alumni Bulletin* will be published and distributed.

Alumni Day will conclude with a dinner dance at the Kenwood Country Club for members and their guests.

The scientific program has been arranged by Dr. Richard F. Manegold, who is Secretary-Treasurer of the Association. Other officers are: Dr. Milton F. Weingarten, President; Dr. James E. Boland, Vice President; and Dr. John W. Price, Historian.

The first Postgraduate Seminar in Pediatrics will be conducted by the combined faculties of Georgetown and George Washington Departments of Pediatrics at Children's Hospital, May 22, 23 and 24. The registration fee is $25, with enrollment limited to 100 physicians. For application blanks and program information, write to the Director of Medical Education, Children's Hospital, Washington 9, D. C.

Physicians and surgeons of national and international renown will present the most recent clinical and investigative advances in gastroenterology at the first **World Congress of Gastroenterology** to be held in the United States, May 25–31. Meetings will be held at the Sheraton-Park Hotel in Washington, D. C.

There will be five main symposia on the following subjects: Peptic Ulcer, Intestinal Infections and Infestations, Malabsorption, Nutrition and Its Effect on the Liver and Pancreas, and Gastric Carcinoma. In addition over 150 papers have been accepted by the Program Committee for free presentation. Over 200 individuals are scheduled to appear on the program, including 36 from the United States and the remainder from 43 other countries. The papers will be interpreted simultaneously in four languages, namely, German, Spanish, French and English.

A variety of social and cultural activities are planned in conjunction with the scientific events. A reception, dinner and entertainment at the Pan American Union Building is planned for Sunday evening, May 25. Other evening entertainment will be a concert by the Washington Symphony Orchestra at the National Theater, Monday; the official banquet of the Congress, Tuesday; and a Terrace Party with dining and dancing at the Shoreham Hotel, Wednesday. Thursday evening will be Embassy Night. The Annual Banquet of the American Gastroenterological Association will be held on Friday evening.

Other meetings which are being held at the time of the World Congress are the following: American Gastroscopic Society, Saturday afternoon, May 24, at the Shoreham Hotel; Gastroenterology Research Group, Thursday afternoon, May 29, at the Sheraton Park Hotel; and the American Association for the Study of Liver Diseases, Saturday afternoon, May 31, at the Sheraton Park Hotel.

Information relative to the World Congress may be secured by addressing Dr. H. Marvin Pollard, Secretary-General, World Congress of Gastroenterology, University Hospital, Ann Arbor, Michigan. As of January 1958, over 750 registrations had been received by Dr. Pollard.

The World Health Organization is celebrating its tenth anniversary this year when the United States will be host to the **Tenth Anniversary Session** and the following **World Health Assembly** meeting to be held in Minneapolis, beginning May 26.

WHO is a specialized agency of the United Nations and represents 88 countries. Its headquarters are in Geneva, Switzerland. With the aim of protecting the health of all peoples, WHO works with national health services to prevent infectious disease and to train health workers. It gives technical assistance to improve sanitary conditions in over 100 countries, warns of outbreaks of epidemic disease, coördinates research, and recommends international standards for drugs and vaccines.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia, at its regular meeting on February 24, 1958, voted to recommend to the Commission on Licensure that physicians working in hospitals in the District of Columbia be required to have a District license.

The Board agreed to contribute $100 in financial support of the Joint Board on Science Education in the Greater Washington Area, which sponsors science fairs, speakers for science clubs, career counseling, and related activities.

At the request of Dr. Lester R. Dragstedt, President of the National Society for Medical Research, the Board approved a contribution of $25.00, as in the past, in support of the organization and its activities. A statement of the policy of N.S.M.R. on animal experiments by students appears on page 203 of this issue of the ANNALS.

The Board will propose for Honorary membership in the Society in November the name of Dr. Charles L. Dunham, Director of the Division of Biology and Medicine, Atomic Energy Commission.

The first National Conference on Nursing Homes and Homes for the Aged, sponsored by the Public Health Service, opened, February 25, at the Willard Hotel. Surgeon General Leroy E. Burney was present to speak at the opening session. Approximately 150 representatives of nursing homes, and of social service organizations, state health and welfare departments, and 32 national organizations participated.

The conference considered measures for improving services to the chronically ill and the aged in the Nation's nursing homes and homes for the aged. It was pointed out that there are now about 25,000 nursing homes in the country containing approximately 450,000 beds. The average age of persons in nursing homes is 80 years, and two-thirds of the group are over 75. Two-thirds of all nursing home patients are women.

Dr. Merrill M. Cross, of Silver Spring, Md., an Associate member of the D. C. Medical Society, represented the American Academy of General Practice at the meeting. The American Medical Association was represented by Mr. George W. Cooley, of Chicago; the American Psychiatric Association, by Dr. Daniel Blain, Washington; and the Joint Commission on Accreditation of Hospitals, by Martha Johnson, R.N., Chicago.

Among the individual participants were Dr. Clifton R. Gruver, Chairman of the Committee on Public Health, Medical Society of D. C.; Miss Josephine J. Albrecht, Executive Secretary, Council on Rehabilitation; and Dr. Josephine Buchanan, Chief, Physical Medicine and Rehabilitation Department, D. C. General Hospital.

PRESIDENT EISENHOWER BECOMES FELLOW OF SURGERY

The White House was the scene of an unusual ceremony, February 6, when physicians representing the American College of Surgeons conferred upon PRESIDENT DWIGHT DAVID EISENHOWER the cap and gown symbolizing his admittance to Honorary Fellowship in the College.

Shown here (left to right) are the participants in the ceremony: MAJOR GENERAL HOWARD M. SNYDER, Personal Physician to the President; DR. BRIAN B. BLADES, Chief of Surgery, George Washington University Hospital; MAJOR GENERAL LEONARD D. HEATON, Commanding Officer of Walter Reed Army Hospital; DR. JOHN H. LYONS, Senior Consultant to the Department of Surgery, Emergency Hospital; THE PRESIDENT; DR. ISIDOR S. RAVDIN, Professor of Surgery, University of Pennsylvania School of Medicine; DR. FRANK B. BERRY, Assistant Secretary of Defense for Health and Medical Affairs; THE HONORABLE ROBERT CUTLER, Special Assistant to the President for National Security Affairs.

General Cutler was similarly honored by the College of Surgeons at its meeting in Atlantic City last October.

President Eisenhower has invited the American people to observe the week of April 20–26 as **Medical Education Week.**

The National Institutes of Health allotted $78,760 during January for research grants and awards to the three Washington medical schools. Awarded to Georgetown University School of Medicine was $16,276, which Dr. Edward D. Freis will use for studies in the chemotherapy of hypertension. George Washington University received $29,175 for studies of the regulation of blood and tissue cholesterol levels by Dr. Carleton R. Treadwell and an additional $3,815 for work by Dr. Jack J. Rheingold in neoplastic diseases. Howard University received $29,494 for studies in aortic autografts in dogs by Dr. Mitchell W. Spellman.

Seven fellowship awards were made to Georgetown, four to George Washington, one to Freedmen's Hospital, and one to the Armed Forces Institutes of Pathology. They were made to support research training of students in medical, dental and nursing schools and for advanced training of graduates.

The new 800-bed **Washington Hospital Center** was officially opened for business, March 10, 1958, when Mrs. David Kraft, of Arlington, Virginia, registered as the first patient.

Members of the Medical Society of the District of Columbia and their wives and friends were invited to a reception and pre-opening tour of the Hospital on Sunday, February 23. Eighty freshman student nurses were stationed all through the Hospital and described the various rooms and services to become available.

In the receiving line to greet their guests were Mr. Charles S. Dewey, President of the Center; Mr. Samuel Spencer, Vice President; Dr. Warwick T. Brown, Administrator; Mr. Richard M. Loughery, Deputy Administrator; Dr. Ralph M. Caulk, President of the Medical Staff; and Drs. Worth B. Daniels, John H. Lyons, Howard P. Parker and Harold Krogh, of the medical and dental staff.

Open house for hospital personnel, allied health and scientific agencies, and the general public was held on Saturday and Sunday, March 1 and 2, when 9,500 visitors availed themselves of the opportunity to observe the new hospital and its facilities, representing expenditures of $23,700,000.

The three merging hospitals, Emergency, Garfield Memorial, and Episcopal Eye, Ear and Throat, began to close in March. Nurses were transferred as the patient load dropped. More than 1,250 hospital employees had been transferred to the new building by the end of the month.

Emergency Hospital and its two connecting buildings will be renovated and converted into Federal office space. General Services Administration had not announced its plans for the properties of Garfield and Episcopal Hospitals when this item was written.

The Hospital's news bulletin, *The Center Line*, continued in its second issue the series of thumbnail sketches and photographs of the medical department heads of the new Center. Recorded in the February issue were Dr. Ralph M. Caulk, President of the Medical Staff and Chief of the Department of Radiology; Dr. Garnet W. Ault, Chairman of the Department of Proctology; Dr. Robert H. Groh, Chief of the Department of Psychiatry; Dr. W. Dabney Jarman, Chief of the Department of Urology; Dr. Beveridge Miller, Chief of the Department of General Practice; Dr. Robert E. Moran, Chief of Plastic Surgery; Dr. Julius S. Neviaser, Chief of Orthopedic Surgery; and Dr. William D. Terrell, Jr., Chief of Obstetrics.

The Woman's Auxiliary to the Medical Society of the District of Columbia elected the following officers for 1958–59 at its regular meeting, March 12, which was held in the Medical Society's Library:

President-elect: Mrs. G. Louis Weller, Jr.
First Vice President: Mrs. Leonard T. Peterson
Second Vice President: Mrs. Henry A. Hornthal
Recording Secretary: Mrs. John Harry King
Assistant Recording Secretary: Mrs. James Choate
Corresponding Secretary: Mrs. John M. Evans
Assistant Corresponding Secretary: Mrs. Brooks G. Brown
Treasurer: Mrs. Hugh O. House
Assistant Treasurer: Mrs. Harry A. Horstman

Mrs. M. Noel Stow will succeed Mrs. James E. Wissler as President. Mrs. Stow has served as President-elect for the current year and takes office, with the other new officers, on July 1.

Dr. Martha M. Eliot, Professor and Head of the Department of Maternal and Child Health at Harvard University's School of Public Health, was honored, March 9, at a dedicatory ceremony for the District Training School Infirmary, which will carry her name. For many years she was Chief of the U. S. Children's Bureau. The Martha M. Eliot Infirmary, of the newest type of buildings, was constructed at a cost of $813,500. It will provide for the care of 200 retarded and bedridden children.

Rear Admiral C. Russell Train, USN (Ret.) was named honorary and permanent member of the Board of Directors of **Children's Hospital** at the monthly meeting of the Board, February 26. Admiral Train has served as a member of the Board of Directors since December, 1939.

Admiral Train was credited with much of the success of the first Building Fund Drive in 1946 and received a special vote of thanks for bringing the campaign "over the top" in 1948, when he was Building Fund Chairman. The Board reluctantly accepted his resignation and unanimously elected his son, Mr. Middleton G. Train, to fill the vacancy. Four generations of the Admiral's family have served in the administration of Children's Hospital.

The Nurses' Examining Board of the District of Columbia announces the appointment of **Mrs. Luna Thomas Evans** as the new Executive Secretary of the Board, effective January 16. She succeeds Miss Ethel J. Odegard, who retired on April 30, 1957, after serving for 13 years. Mrs. Evans has been with the Board since July, 1952.

PERSONALS

Dr. Murray M. Copeland, Professor and Director of the Department of Oncology, Georgetown University School of Medicine, assumed the presidency of the Southeastern Surgical Congress at its annual meeting in Baltimore, March 12.

Dr. Copeland was recently appointed to the National Advisory Cancer Council of the Public Health Service for a 3-year term. This Council, established by Act of Congress in 1937, reviews applications for research projects relating to the study of the cause, prevention, or methods of diagnosis and treatment of cancer. Upon recommendations of the Council, the Surgeon General awards grants-in-aid to scientists and institutions whose projects show promise of making valuable contributions to the knowledge of cancer.

On February 27 Dr. Copeland received the St. George Medal and Citation for outstanding service in the cause of cancer control in the District of Columbia at the semi-annual meeting of the Board of Trustees of the District of Columbia Division of the American Cancer Society.

In presenting the bronze medal at a luncheon in his honor, Dr. Calvin T. Klopp, President of the local Society, cited the extensive work of Dr. Copeland in the field of cancer control. Dr. Copeland is a former President of the D. C. Division, a member of the Executive Committee of the Society, and a member of the Board of Directors of the national organization.

Dr. John L. Parks, who became Dean of George Washington University School of Medicine, September 1, received the annual Award of Merit from the **George Washington University Medical Society** at its annual banquet, February 22, at the Shoreham Hotel.

Dr. Parks, a graduate of the University of Wisconsin School of Medicine, joined the medical faculty of George Washington University in 1939. He became Head of the University's Department of Obstetrics and Gynecology and Chief of Obstetrics and Gynecology of the Hospital in 1944.

DR. PARKS HONORED BY CONFRERES

DR. JOHN PARKS (right), Dean of George Washington University School of Medicine, was honored by the George Washington University Medical Society, February 22, when he was named to receive the annual Award of Merit for his services to the University. The President of the Society, DR. DONALD H. LEEPER, is presenting the certificate to Dr. Parks.

Following presentation of the certificate by Dr. Donald H. Leeper, President of the Society, Dr. Parks received a standing ovation from the 250 medical alumni, faculty members and guests who were present at the banquet.

Guest speaker was Vice Admiral Alfred C. Richmond, Commandant of the U. S. Coast Guard, a 1938 graduate of the University's Law School. In an unusual but apropos address to this medical group, he described "The Headaches Arising from

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
February 20	Dr. Henry P. Laughlin	Emotional Stability of the Housewife	Kensington Branch, American Association of University Women
February 23	Dr. Leon Salzman	Psychiatry and Religion: Is There Common Ground?	Mount Vernon Unitarian Church
March 11	Dr. Roland H. White	The Ear in Health and Disease	Washington Hearing Society
March 12	Dr. Jacob J. Weinstein	Fluids and Electrolyte Balance	Graduate Nurses' Association
March 28	Dr. Anthony Zappala	Group and Activity Therapies in a Clinic Setting	Annual Meeting of National Council on Alcoholism, New York City

the Expansion of Small Boating in the United States." He expressed the concern of the Coast Guard for the rising tide of small boats in the inland and coastal waters of the United States and the lack of adequate legislation to control and regulate it for the safey of all participants. Dr. Leeper is Commodore of the Rose Haven Yacht Club and estimated that half the listeners were boatmen as well as physicians.

Dr. Thelma B. Dunn, of the National Institutes of Health, who is well known for her research in the pathology of cancer, will be one of six American women medical scientists to leave the United States in May for a one-month tour of medical institutions in the Soviet Union. Dr. Dunn is an Associate member of the D. C. Medical Society.

Preliminary arrangements for the trip have been completed with the National Academy of Sciences in coöperation with the Rockefeller Foundation, the American Medical Association, and the American Medical Women's Association.

The delegation will be headed by Dr. Helen B. Taussig, of Johns Hopkins University Hospital. Other members of the party will be Dr. Leona Baumgartner, Commissioner of Health in New York City; Dr. Jean Henley, anesthesiologist, College of Physicians and Surgeons, Columbia University; Dr. Esther C. Marting, radiologist, University of Cincinnati School of Medicine; and Dr. Margaret H. Sloan, of the National Academy of Sciences–National Research Council, in charge of its advisory services to the National Blood Program.

The visit is the result of an exchange agreement entered into by the United States Department of State and the Soviet Union. Last October, six women scientists from the U.S.S.R. spent a month in the United States visiting medical institutions in cities in the East and Middle West.

Dr. Jonathan M. Williams, Assistant Clinical Professor of Neurological Surgery, George Washington University School of Medicine, was decorated, January 31, by the Dominican Republic with the Order of Duarte, Sanchez y Mella for medical services to that country over the past 6 or 7 years. Dr. Williams was in the Republic about ten days during January, a guest of the Government, for consultations and to give lectures and perform surgery.

Dr. Oscar B. Hunter, Jr., has been appointed to the Committee on Emergency Plans of the Joint Blood Council by Dr. Leonard W. Larson, President of the Council. Dr. Sam T. Gibson is Chairman of the Committee. The other members are Dr. Roger W.

DeBusk, of Detroit, Michigan, and Dr. Walter B. Martin, of Norfolk, Virginia.

The National Alumni Fund Committee of George Washington University is making a special drive for additional funds to be used for faculty salaries, scholarships, library facilities, and building needs. Contributions from 27,000 alumni, 15,000 of whom live in the Washington area, will be solicited. **Dr. Donald H. Leeper** is chairman of the committee which will secure funds from the alumni of the School of Medicine.

Dr. James A. Gannon, Sr., reported for his new duties as ship's surgeon on the Grace Line's *S. S. Santa Monica*, March 17. Cruises on the Grace Line include the Caribbean area and both the east and west coasts of South America.

Dr. Gannon is accepting duty for 90 days; if the experience agrees with him, he will extend his stay indefinitely. If he returns to Washington at the end of 90 days, he will live at the Cosmos Club and share office space with another physician in the downtown area.

His address until the middle of June is *S.S. Santa Monica*, c/o The Grace Line, Foot 15th St. West, New York 11, N. Y. Mail will be forwarded from that point.

In advising the Secretary of the Medical Society of his new venture, Dr. Gannon wished to say goodbye, through these columns, to members of the Society he was unable to see before his departure. "I will carry with me many fond memories of the Medical Society and of its continuing kindness to me during the past 51 years of my membership," he concluded.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Strabismus Ophthalmic Symposium II. Edited by James H. Allen, M.D., Professor and Chairman of the Department of Ophthalmology, School of Medicine, The Tulane University of Louisiana; Chief of Ophthalmology, Hutchinson Clinic; Senior Visiting Surgeon and Head of the Department of Ophthalmology, Tulane Unit, Charity Hospital of New Orleans; Senior Surgeon and Director of Training Program in Ophthalmology, New Orleans Eye, Ear, Nose and Throat Hospital, New Orleans, La. Price, $16.00. Pp. 552, with 251 illustrations. St. Louis: Mosby, 1958.

Current Therapy 1958. Latest Approved Methods of Treatment for the Praticing Physician. Edited by Howard F. Conn, M.D. Consulting Editors: George E. Burch, M. Edward Davis, Vincent J. Derbes, Garfield G. Duncan, Hugh J. Jewett, Clarencf S. Livingood, Perrin H. Long, H. Houston Merritt, Walter L. Palmer, Hobart A. Reimann, Cyrus C. Sturgis, and Robert H. Williams. Price, $12.00. Pp. 827. Philadelphia: Saunders, 1958.

General Pathology Based on Lectures Delivered at the Sir William Dunn School of Pathology, University of Oxford, 2nd ed. Edited by Sir Howard Florey, Professor of Pathology, University of Oxford. Contributions from 15 authors. Price, $16.00. Pp. 932, illustrated. Philadelphia: Saunders, 1958.

The Undiscovered Self. C. G. Jung, M.D. Translated from the German by R. F. C. Hull. Price, $3.00. Pp. 113. Boston: Little, 1958.

The Essence of Surgery. C. Stuart Welch, M.S., M.D., Ph.D., Professor of Surgery, Albany Medical College of Union University, and Samuel R. Powers, Jr., A.B., M.D., M.Sc.D., Professor of Experimental Surgery, Albany Medical College of Union University. Price, $7.00. Pp. 320, with 50 illustrations. Philadelphia: Saunders, 1958.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, February 24, 1958, in accord with Amendment XI, Section 2, of the Constitution and Bylaws of the Society.

Active Members

Claude R. Ball, 2917 Bellevue Terrace, N.W.
Frances E. Brennecke, 1333 28th Street, N.W.
Arthur S. Cain, 4000 Massachusetts Avenue, N.W.
John M. Cox, 1744 Jackson Street, N.E.
George J. Fleury, Jr., 921 20th Street, N.W.
James F. O'Rourke, Georgetown University Hospital
Henry Shields Robinson, Jr., 1800 Randolph Street, N.E.

Richard H. Kosterlitz, Washington Hospital Center
Roger L. Shapiro, 1831 23rd Street, N.W.
Robert J. Sherman, 1835 Eye Street, N.W.
Moe Weiss, Glenn Dale Hospital, Glenn Dale, Md.
Paul W. Yost, 2203 North Rolfe Street, Arlington, Va.

Associate Members

Chalom A. Albert, D. C. General Hospital
Antonio P. Canadas, 915 19th Street, N.W.
Glenn P. Speidel, 1700 Rhode Island Avenue, N.W.
Azad J. Vosger, 1222 Monroe Street, N.E.
Miroslava M. Vozenilek, 2870 South Abingdon Street, Arlington, Va.

Resident-Intern Member

J. William Stohlman, 8910 Montgomery Avenue, Chevy Chase, Md.

Recent changes in membership status:

Active to Associate

Robert J. Brennan
William T. Briebe
Robert E. Byrne
John L. DeMayo
Ross M. Lehman, Jr.
William E. Long
Michael M. Miller
John H. Peacock
Thomas J. Pekin

Associate to Affiliate

Roland E. Bieren

Resigned

Active

Ralph J. Carbo, Sr.
Morton C. Creditor
Bernard J. Michela
Robert W. Painter
F. Daniel Suttenfield

Associate

Verne K. Harvey
John R. Hogan
Allan E. Marans
Lucy D. Ozarin
William F. Schnitzker
Leon Seley
Ruth E. Standard

Resident-Intern

Robert G. McCorkle
Henry S. Spencer
Elroy Young

JACOB KOTZ, M.D., F.A.C.S.

(1896–1958)

Dr. Jacob Kotz, a leading obstetrician in Washington for nearly four decades, died, February 28, 1958, in Doctors Hospital, where he had been hospitalized for about two weeks. Dr. Kotz had retired from practice in 1954. He was associated at that time with Dr. M. S. Kaufman in offices at 1835 Eye Street, N.W.

Dr. Kotz was born in Russia, December 25, 1896, to Benjamin and Anna Rubin Kotz. He was educated in the public schools of Washington, D. C., and attended Emerson Institute. In 1917 he graduated from George Washington University School of Medicine. He interned at Baltimore's Mt. Sinai Hospital and at Columbia Hospital for Women in Washington. A decade later he enrolled for post-graduate study at the Polyclinic and Beth Israel Hospitals in New York.

He served overseas as First Lieutenant in the Army in World War I.

Through his work in obstetrics and gynecology, Dr. Kotz became interested in cancer research and was one of the first of the Washington profession to use the Papanicolaou smear test.

Dr. Kotz had a long teaching career. For many years he was Clinical Professor of Obstetrics and Gynecology at George Washington University, having served on its staff for some 33 years. Before his retirement he was Attending Gynecologist at George Washington University Hospital, Chief of the Department of Obstetrics and Gynecology at Sibley Memorial Hospital, and consultant in gynecology to D. C. General Hospital. He was also on the hospital staffs of Columbia and Prince Georges County Hospitals.

Dr. Kotz was a diplomate of the American Board of Obstetrics and Gynecology. He was a fellow of the American College of Surgeons, the International College of Surgeons, and the International College of Anesthetists; a member of the American Medical Association, the Southern Medical Association, the Washington Gynecological Society, and the Jacobi Medical Society. He helped to organize the Jacobi Society and served as its first president. Dr. Kotz was elected an Active member of the Medical Society of the District of Columbia in 1923, but he transferred to Associate membership early in 1955 after he had retired from practice.

His social organizations included the Army-Navy Club, the Woodmont Country Club, the National Press Club, and Sigma Xi fraternity. He was a member of the Board of the Jewish Community Center.

Dr. Kotz excelled in other fields outside of the medical. He was exceptionally talented as an artist and much of the time since his retirement was devoted to painting. He was active in the business and civic growth of Washington through his real estate interests and served on an executive level in many fund-raising drives for various charities, both national and local.

He is survived by his wife, Mrs. Tibby Kallison Kotz, of the home address, 2828 Connecticut Avenue, N.W.; a son, Nathan K. Kotz; a brother, Samuel Kotz; and two sisters, Mrs. Bessie Barkin and Mrs. Rose Wallerstein, all of Washington.

RALSTON H. ADAMS, M.D.

(1919–1958)

Dr. Ralston H. Adams, Associate member of the District Medical Society, a specialist with the Food and Drug Administration, died, February 17, 1958, in a Maryland hospital.

Dr. Adams was born in Washington, D. C., July 7, 1919. His father, Dr. Leason H. Adams, of Chevy Chase, Md., is retired Director of the Geophysical Laboratory at the Carnegie Institution; his mother was the late Jeanette Blaisdell Adams.

Dr. Adams was educated in the public schools of Washington and Bethesda, Maryland. He attended the University of Virginia and graduated in medicine from George Washington University in 1943. He interned the following year at the U. S. Marine Hospital in Baltimore. He served as a lieutenant in the Public Health Service during World War II, and was assigned to the Coast Guard. He was a combat veteran of the Battle of Okinawa.

After the War Dr. Adams served as resident physician at Emergency Hospital in Washington from 1946 to 1947. In 1949 he enrolled for postgraduate study at the Washington School of Psychiatry. He became associated with the Food and Drug Administration a year ago.

He helped establish the health program in Montgomery County schools and was at one time Director of the Child Health Clinc of Montgomery County.

He was an Active member of the Montgomery County (Maryland) Medical Society and a member of the George Washington University Medical Society. He was elected an Associate member of the D. C. Medical Society in 1950.

Dr. Adams is survived by his wife, Mrs. Muriel B. Adams, and four children, Ralston H., Jr., Margaret, Charles B., and Christopher L., of the home address, 1502 University Blvd. West, Silver Spring, Maryland. In addition to his father, two brothers and a sister survive: Leason B. Adams, of Kensington, Md., William M. Adams, of Roundbay, Md., and Mrs. Madeline Jones, of Westport, Conn.

Our Times and the Physician—Hess

(*Continued from page 166*)

cian, solo practitioner, group practitioner—you are all a part of Medicine. We need your opinions and advice, and you need ours. The only hope of a united profession against the social planners is YOU. Wake up—be an active member of your local Society.

As you know, I have a new job. It has to do with both Selective Service and the Office of Defense Mobilization. I cannot do this job well unless you help me. We are in the valley of the Shadow of Death. I do not believe war is imminent, but it could come tomorrow. We must be ready for it should it come. Our survival in the next war will depend on how well the medical profession is ready to do its job. Without us—what? We must be willing and ready to be regimented as part of the armed forces of the whole country. The next war will be one for survival. We will have to sublimate ourselves and our services, with no thought of anything but survival, for the best interests of our country as a whole. We must be prepared to make this sacrifice in the hope that we may regain our individual liberties when the catastrophe is over. Truly, our times demand much of us. Let's rededicate ourselves to the profession which we all love and to the country that has made it possible for us still to be free men.

Fetal and Neonatal Distress—Anderson et al

(*Continued from page 184*)

Goddard, R. F.: Current Res. in Anesth. & Analg., 1955, **34**, 1.
Himwich, H. E., Alexander, F. A. D., and Fazekas, J. F.: Am. J. Physiol., 1941, **133**, 327.

Himwich, H. E.: Brain Metabolism and Cerebral Disorders. Baltimore: Williams & Wilkins, 1951.
Hsia, D. Y. Y., Allen, F. H., Diamond, L. K., and Gellis, S. S.: J. Pediat., 1953, **42**, 277.
Karlberg, P., and others: Acta paediat., 1954, **43**, 397.
King, E. L.: Am. J. Obst. & Gynec., 1940, **39**, 529.
Knoblock, H., Rider, R., Harper, P., and Pasamanick, B.: J.A.M.A., 1956, **161**, 581.
Lillienfeld, A. M., Pasamanick, B., and Rogers, M.: Am. J. Pub. Health, 1955, **45**, 637.
McCall, J. O., and Fulsher, R. W.: Am. J. Obst. & Gynec., 1953, **65**, 1006.
Majewski, J. T., and Jennings, T.: Obst. & Gynec., 1957, **9**, 322.
Marchetti, A. A., and Tuohy, E. B.: Bull. Georgetown Univ. Medical Center, 1950, **5**, 203.
Metcalfe, J., and others: J. Clin. Invest., 1955, **34**, 1632.
Roberts, M. H.: J.A.M.A., 1949, **139**, 439.
Romney, S. L., Reid, D. E., Metcalfe, J., and Burwell, C. S.: Am. J. Obst. & Gynec., 1955, **70**, 791.
Saunders, C. (Dublin): J. Obst. & Gynaec. Brit. Emp., 1948, **55**, 55.
Factors in perinatal mortality. Statist. Bull. Metrop. Life Insur. Co., April 1957.
Swann, H. G., Brucer, M., and King, B. R.: J. Appl. Physiol., 1953, **5**, 421.
Taylor, E. S.: J.A.M.A., 1954, **156**, 1481.
Windle, W. F.: Asphyxia Neonatorum: Its Relation to the Fetal Blood, Circulation, and Respiration and Its Effects upon the Brain. Publication No. 52, American Lecture Series, Monograph in American Lectures in Physiology, edited by Robert F. Pitts. Springfield, Ill.: Thomas, 1950.

Combined Use of Meprobamate and Aspirin—Mitchell

(*Continued from page 191*)

4. Eisenberg, S. H., and Neviaser, J. S.: Ann. New York Acad. Sc., 1957, **67**, 853.
5. Perlstein, M. A.: J.A.M.A., 1956, **161**, 1040.
6. Selling, L. S.: Ibid., 1955, **157**, 1594.
7. Borrus, J. C.: Ibid., 1955, **157**, 1596.
8. Lemere, F.: Northwest Med., 1955, **54**, 1098.
9. Hollister, L. E., Stannard, A. N., and Drake, C. F.: Dis. Nerv. System, 1956, **17**, 289.
10. Osinski, W. A.: Internat. Rec. M., 1956, **169**, 589.
11. Pennington, V. M.: J.A.M.A., 1957, **164**, 638.
12. Friedman, A. P.: Ann. New York Acad. Sc., 1957, **67**, 822.

Animal Experiments by Students

(*Continued from page 203*)

ficiency appear. Appropriate measures shall then be taken to correct the deficiency, if such action is feasible. Otherwise, the animal must be humanely disposed of.

6. Students shall not be permitted to participate in science fairs held under the auspices of Science Clubs of America until their adult sponsors have submitted assurance that the above rules shall be observed.

The National Society for Medical Research strongly favors animal studies by students when conducted in accordance with these humane principles.

On the Lighter Side—Kadan

(*Continued from page 210*)

situation like those described may be dangerous to a man around George's age. The excitement, so-called by some, may lead to a heart attack or worse. Our George is much better off down there under the grandstand out of harm's way and missing all that hup-de-do.

Personally, I and many of my medical confreres freely and firmly believe that such a life is much too hard for George. And anything that we, individually or collectively, can do to make George's life easier in his reclining years we would be most happy to do. But, come to think of it—what would the baseball team do with an obstetrician?

J. Earl Kadan, M.D.

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Welch, H., Lewis, C. N., St
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single oral dose in man.
222, 1957.
Pulaski, E. J., and Isokan
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ministration of tetracycline
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Book Reviews

John Jacob Abel, M.D.: Investigator, Teacher, Prophet, 1857–1938. A Collection of Papers by and about the Father of American Pharmacology. Pp. 80. Baltimore: Williams & Wilkins, 1957.

This collection of papers by and about John Jacob Abel has been published by the Williams & Wilkins Company as a memorial to commemorate the one-hundredth anniversary of his birth. Though it is of interest primarily to pharmacologists, and is a collection of papers previously published in various journals, it represents a worthy effort.

Dr. Abel was the first pharmacologist in our country, and established the first modern department of pharmacology at the University of Michigan in 1891. Later, and primarily, he was a member of the faculty of the Johns Hopkins School of Medicine, with Osler, Welch, Halsted, Kelly and others of that memorable group. He pioneered in research to isolate the active principles of the endocrine glands. He first isolated insulin in pure crystalline form. The idea and the general principles of the "artificial kidney" were developed in his laboratory. His work on the phthaleins culminated in the valuable kidney and liver function tests.

Recognizing the importance of communication in science he founded *The Journal of Pharmacology and Experimental Therapeutics* and was its editor from its inception in 1909 until 1932. It was Dr. Abel who induced the printing concern of Williams & Wilkins to undertake the publication of his journal. From this initial effort Williams & Wilkins grew to become a publishing house of first importance in the American scientific endeavor. In this monograph the publisher has expressed his appreciation.

The monograph contains 2 biographical sketches of Dr. Abel and 4 of his publications illustrative of his professional achievements. It is of interest as an historical record.

DONALD A. JOHNSON, M.D.

Biochemistry of Some Peptide and Steroid Antibiotics. E. P. ABRAHAM, M.A., PH.D., Senior Research Officer, Sir William Dunn School of Pathology, Oxford University; Fellow of Lincoln College, Oxford. Pp. 96. New York: Wiley, 1957.

This volume represents the 1957 Ciba on Microbial Biochemistry presented at the Institute of Microbiology, Rutgers University. In these lectures Dr. E. P. Abraham, of Oxford University, describes the recent work in several families of antibiotics and particularly the bacitracins, and 2 families of cephalosporins, of which one is related to penicillin and the other is of a steroidal nature. This book also treats the functional relationships of bacitracins and cephalosporins to other antibiotics. The antibiotics which are discussed in the book appear to exert their bacteriotic effect by interfering with processes that help to maintain the cell wall. The unraveling of the biochemical reactions which these antibiotics bring about will undoubtedly be accompanied by an increase in our general knowledge of peptide and nucleic acid synthesis and a better understanding of the basic structural and metabolic differences to one kind of organism and another.

The book is written primarily for the biologist or biochemist with backgrounds in organic chemistry.

WILLIAM KURSTIN, M.D.

Clinical Cardiopulmonary Physiology. Sponsored by the American College of Chest Physicians. BURGESS L. GORDON, M.D., Editor-in-chief. Price, $15.75. Pp. 759. New York: Grune, 1957.

The task of evaluating a book is a major one under any circumstances. However, the magnitude of this task is unusual because of the scope the book is designed to cover. The authors state simply that the book is designed to correlate the thinking and experience of the cardiopulmonary physiologist in the laboratory with that of the clinician at the bedside. In practice, this turns out to be an herculean effort.

The first chapter, a review of the historical development of our knowledge of cardiopulmonary function, is exciting, starting with the concepts of Hippocrates and Plato, covering the painstaking measurements of vital capacity in 1846 by Hutchinson, and including the remarkable advances in our knowledge of cardiopulmonary function during the 20th century.

One chapter is devoted to normal cardiopulmonary function including that of the bronchopulmonary segment as a unit. This chapter is written with clarity and absorbs the reader's interest. Basic fundamentals are reviewed, including the gas laws, the hemoglobin dissociation curve, and the Fick Principle. The regulatory function of the lungs with reference to white blood cells and platelets is discussed. Other succeeding chapters cover tests and methods of evaluating cardiopulmonary function, including radiologic studies of the heart, great vessels of the chest, and ventilatory apparatus. The nature and significance of lung volume measurements are presented in detail. The pulmonary and systemic circulations are compared and contrasted both from the anatomic and hemodynamic viewpoints.

Adequate attention is devoted to the importance of the clinical history and the physical examination of the respiratory system in the determination of the need for specialized diagnostic tests and in clinical differential diagnosis. The current concepts of the physiological implications and consequences of dyspnea and orthopnea

(*Continued on page 46*)

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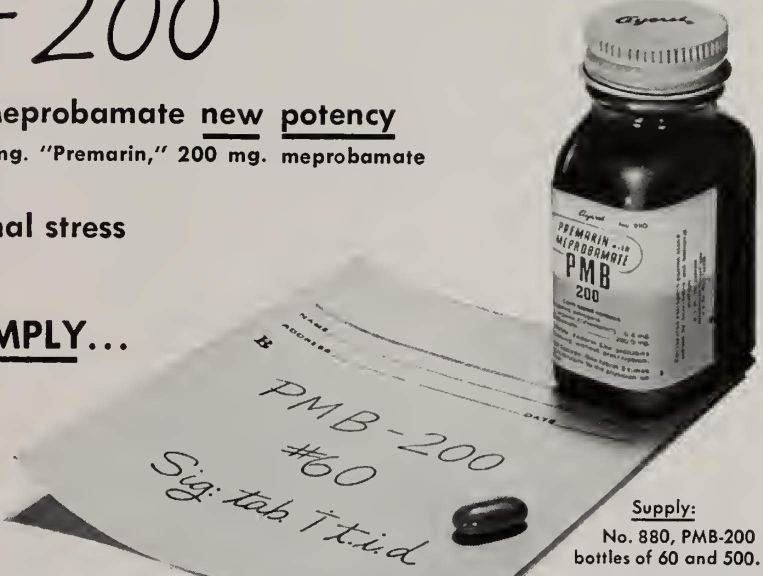

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(*Continued from page 44*)

are considered in detail. A careful analysis of oxygen and oxygen-helium therapy is presented. The physiological basis and clinical importance of positive and negative pressure breathing and pneumoperitoneum in cardiopulmonary diseases are given careful consideration.

The major chronic diseases of the lung are discussed. Consideration is also given to chest deformities and pulmonary function, pulmonary manifestations of collagen diseases, interstitial pneumonitis, sarcoidosis, and pulmonary mycoses.

The last one-third of the book is devoted primarily to a consideration of heart disease, starting with pulmonary heart disease and pulmonary edema. The section on Pulmonary Edema includes an excellent review of basic mechanisms and provides the clinician with a rational basis for therapy. Sections are presented on Pulmonary Embolism and Infarction and the Management of Acute Cardiac Emergencies.

An extensive chapter is presented on Congestive Heart Failure. The attempt to compress knowledge of all forms of heart failure into this one chapter diminishes the effectiveness of this chapter. The material which the authors attempted to cover in this chapter appears to have been a more proper subject for a separate book.

An unusual chapter is presented on Acquired Valvular Heart Disease: Clinical and Hemodynamic Features. The section of this chapter on hemodynamics is written with great clarity and comprehension and is easily one of the best treatments of this subject we have seen in print.

Although the scope of this book may well be too broad, it is a courageous attempt to correlate cardiopulmonary physiology and clinical cardiopulmonary disease. The book as a whole represents a successful achievement of this purpose.

JOHN B. JOHNSON, M.D.

Symposium on Diseases and Surgery of the Lens. Editor: GEORGE M. HAIK, M.D., F.A.C.S. Associate Editor: ELIZABETH M. MCFETRIDGE, M.A. Art Editor: DON ALVARADO. Price, $10.50. Pp. 260. St. Louis: Mosby, 1957.

This book reports the proceedings of the Fifth Annual Session of the New Orleans Academy of Ophthalmology, held in 1956. It compiles the presentations and round table discussions of the eminent authorities, Paul A. Chandler, Frederick C. Cordes, John H. Dunnington, S. Rodman Irvine, V. Everett Kinsey, H. E. Thorpe, and Derrick Vail. There are 12 chapters covering such basic material as the embryology of the lens on through diagnosis and surgery of diseases of this structure. Some of the original papers by these authors are brought together for the first time in a textbook. The treatment of congenital cataract, wound healing and its complications, and vitreous changes in cataract surgery are well considered. The subjects are again covered in a practical manner in a 38-page question-and-answer round-table discussion, which is excellent. The opinion of each participant is given and, as is to be expected, there are differences. In other words, there is still no unanimity of solution to the every-day problems encountered in this field. Among the book's virtues is the list of references after each chapter.

I highly recommend the text to the ophthalmologist who is performing cataract surgery. It will be of help to the resident and the experienced surgeon, and will be a welcome addition to every library housing ophthalmologic texts.

JOHN HARRY KING, JR., M.D.

A Textbook of X-ray Diagnosis. By British Authors. In Four Volumes. Third Edition. Volume I. Edited by: S. COCHRANE SHANKS, M.D., F.R.C.P., F.F.R., AND PETER KERLEY, C.V.O., C.B.E., M.D., F.R.C.P., F.F.R., D.M.R.E. Price, $18.00. Pp. 521, with 533 illustrations. Philadelphia: Saunders, 1957.

Volume I, the first of 4 volumes to be published, introduces the third edition of the well-known Text-Book of X-ray Diagnosis by British Authors. Volume I, The Head and Neck, is again divided into 5 parts, comprising the Central Nervous System, The Teeth and Jaws, The Eye, The Accessory Nasal Sinuses, and The Ear and Temporal Bone.

The authors have greatly improved this popular work by the addition of new text and 95 new illustrations. The book is easy to read. The format is pleasing and the binding is of good quality. Although the radiographic reproductions are again made in the negative phase, this should not hinder the reader.

It is Part I, The Central Nervous System, where the authors have made the greatest changes. Chapter III, Ventriculography and Encephalography, contains many new illustrations and there is a discussion on positive contrast (Myodil) ventriculography. The text of Chapter IV, Cerebral Angiography, has been expanded and many new radiographs have been used to illustrate the various pathologic lesions. A more detailed discussion of vertebral angiography is also included in this chapter. There has been a similar enlargement of Chapter VII, The Spinal Cord. The other parts show essentially no change since the last edition.

The textbook is especially recommended for all residents in radiology. The book is outstanding in its field and would serve as a valuable reference source for all diagnostic radiologists.

CHARLES E. BICKHAM, JR., M.D.

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A NEW METHOD FOR DRAINING THE SUBARACHNOID SPACE UNDER CONTROLLED PRESSURE

O. HUGH FULCHER, M.D., F.A.C.S.
Professor of Neurosurgery, Georgetown University School of Medicine

Problems of Circulation of the Cerebrospinal Fluid

DROPSY of the head or hydrocephalus has been observed since earliest times, but the cerebrospinal fluid was not discovered until 1825 by Francois Magendie.[1] Quincke[2] invented the spinal puncture in 1891 to combat hydrocephalus. He surmised that the cerebrospinal fluid was formed in the ventricles and flowed outwardly. The experimental evidence of the circulation of the cerebrospinal fluid was developed in the second decade of the twentieth century. Dandy[3] created an artificial hydrocephalus in a dog by plugging the cerebrospinal aqueduct. He also demonstrated that if the foramen of Monro is plugged and if the choroid plexus is removed no cerebrospinal fluid is formed in that particular ventricle. His experiments demonstrated that the cerebrospinal fluid is formed within the ventricles and flows into the subarachnoid spaces for absorption. Weed[4] demonstrated that the absorption takes place principally by means of the subarachnoid villi. It is readily evident that the cerebrospinal fluid, which is formed by the arterial system and absorbed by the venous system, represents an intermediary product.

Schaltenbrand[5] made the interesting speculation that the cerebrospinal fluid probably took the place of the water of the ocean in which the first living beings originated. Its purpose is to create an internal environment for the central nervous system. It helps to maintain a uniform temperature, to absorb shocks and jars, and to form a cushion against the buttress of intra-abdominal and intrapleural pressures.

The overproduction of cerebrospinal fluid with resulting hydrocephalus has been considered one of the great curses of humanity. Throughout the ages this condition, variously named, has been treated by every known means with minimum successes. One would assume that as soon as the origin, circulation, and absorption of the cerebrospinal fluid was understood that any one of these processes could be controlled.

The whole problem of hydrocephalus is divided into the obstructive and the communicating types. In the obstructive type the circulation of the cerebrospinal fluid is altered. The obstruction exists at one of the foramina or in the cerebral aqueduct which does not hinder the formation of cerebrospinal fluid within the ventricular system but does prevent its escape into the cerebral subarachnoid space. The logical treatment would consist of removing the obstruction. This, however, has not always been practicable, since frequently the site of obstruction does not permit a successful surgical attack. Therefore, surgeons have attempted to make new pathways for the cerebrospinal fluid. Dandy[6] had some success in establishing a new pathway through the anterior wall of the third ventricle. Later a pathway was made through the floor of the third ventricle. All types of ingenious methods have been instituted with only moderate success. Ingraham and Matson[7] listed the following historical attempts:

1. Simple puncture of the lateral ventricle
2. Blood-letting
3. Diuresis
4. Use of gland extract
5. Dehydration
6. Tight bandaging of the head
7. Roentgen treatment of the choroid plexus
8. Resection of the choroid plexus
9. Ligation of the choroid arteries
10. Lumbar puncture
11. Constant ventricular drainage to the surface of the body, the subaponeurotic tissues, the subarachnoid and subdural spaces, the cerebral veins, the longitudinal sinuses, the scalp and neck veins, orbit, and nasopharynx, paranasal air sinuses and mastoid
12. Constant spinal drainage to the subcutaneous tissues, the peritoneum and retroperitoneal space, bowel, bone marrow, and the urinary tract.

These authors stated that the innumerable published reports of these various treatments represent for the most part a recital of discouragement and failure.

Recently the ventriculocisternostomy according to the method of Torkildsen has been used. This operation has been fairly successful when the cisterna magna has been patent. When the cisterna magna has not been patent I have used the epidural space of the upper cervical region. The only modification to that of the Torkildsen procedure is that the end of the rubber tube is beveled to a narrow point and this is fastened under one of the vertebral arches to avoid pressure on the dura. Enomoto and Fulcher[8] demonstrated that the epidural space has a remarkable ability to absorb fluids. They demonstrated that in the adult this space could absorb about 4,000 c.c. of isotonic fluids during 24 hours. Furthermore, they demonstrated that if phenolsulfonphthalein was injected into the epidural space it appeared in the urine almost as rapidly as if it had been given intravenously, and at the end of the first hour the elimination was identical. Recently they have operated on 2 patients using this procedure which has reduced the intraventricular pressure to 120 mm. of water or less. In this type of patient they contemplate that if the tube should become blocked they will then probably be able to perform the usual Torkildsen procedure which is more applicable to older infants.

If the circulation of the cerebrospinal fluid is normal and there exists no obstruction and yet there is an abnormal accumulation of spinal fluid, the condition is known as communicating hydrocephalus. There exists a disproportion between production and absorption. One of the mysteries is why the ventricular system should dilate in communicating hydrocephalus. The hydrodynamics should be the same in all directions if a truly communicating hydrocephalus exists, and the pressure should be the same in the ventricle and the cerebral subarachnoid spaces. In other words, there must be greater pressure within the brain cavities in order to overcome the elasticity of the ventricular system and thus to produce dilatation. It is possible that this could be effected by the hydrostatic pressure being transmitted through the midbrain to the wall of the cerebral aqueduct to produce a relative obstruction.

The method for diagnosing communicating hydrocephalus has long been established. However, frequently the tests indicate communicating hydrocephalus when there is actually an obstruction. Therefore, in the final analysis, the diagnosis of communicating hydrocephalus is made only after the institution of continuous subarachnoid drainage under controlled pressure. This method will be described below.

One of the most successful methods of treating communicating hydrocephalus has been the extirpation or destruction of the choroid plexus. This has been done by Cushing,[9] Dandy,[6] Putnam,[10] Scarff,[11] and others. More recently Matson[7] has attacked the problem by a modification of Heile's operation. He has used a polyethylene tube to connect the arachnoid to the ureter after unilateral nephrectomy. This type of procedure permits the excessive cerebrospinal fluid to be drained into the urinary bladder and expelled by voiding. Matson has demonstrated that a child can live while excreting most of the cerebrospinal fluid and that the excessive elimination of sodium chloride can be compensated by its addition to the diet.

It has been my experience[12] that if the excessive cerebrospinal fluid in a patient suffering with communicating hydrocephalus can be drained off for a period of 3 months an adequate absorptive mechanism will develop. In other words, if the pressure of the cerebrospinal fluid can be decreased to the extent that the larger cortical veins are no longer collapsed and can function, the subarachnoid villi will develop and begin to absorb the cerebrospinal fluid. Therefore, I wish to introduce a very simple procedure to drain the excess cerebrospinal fluid which can be repeated once or twice a month if necessary:

This simple method was successful in some cases. A spinal puncture is made between the third and fourth spinous processes with a no. 14-gauge Tuohy spinal puncture needle after making a little nick in the skin. A polyethylene tube, size 3.8 F., is bent at right angles about 2 cm. from the end, and some small perforations are made in the distal portion, with a window just proximal to the right angle and the small piece of polyethylene wall elevated by heating in hot water. This semi-open window is designed to buttress against the dura to maintain the correct position of the tube and to assure that the cerebrospinal fluid is drained into the epidural space. The correctly marked polyethylene tube is then threaded through the spinal puncture needle, the needle withdrawn, the tube adjusted, then cut beneath the surface of the skin, and a single silk suture used to anchor it to the fascia. If the tube should become blocked the procedure can be repeated with very little trouble. This simple procedure appears to be about as effective as draining the cerebrospinal fluid into the epidural spaces by an open operative technic. It is realized that no single procedure may relieve a patient of hydrocephalus. The surgeon must be patient and do repeated procedures if necessary. The overproduction of cerebrospinal fluid in children has been evident because of the large head and in adults because of symptoms and signs of increased intracranial pressure. Unquestionably there does occur in some patients an underproduction of cerebrospinal fluid. Page[13] has demonstrated intracranial hypotension associated with severe symptoms which disappeared rapidly when the subarachnoid pressure was increased.

The cerebrospinal fluid is produced mainly by the choroid plexus which is quite similar histologically to the renal glomerulus. It appeared logical to assume that it could be made an end-product of this arterial system and could therefore be excreted as a modified urine, in which event the choroid plexus could function as a third kidney during an emergency. This concept evolved as a result of several incidences.

During December, 1950, an intimate friend, a man 41 years of age, developed anuria as a result of lower nephron necrosis. There existed no way at that time to get rid of the excessive fluid, excessive sodium chloride, and the accumulated products of catabolism. In spite of all efforts by the internists, such as gastric lavage, tourniquets about the extremities to produce local edema, hyperhidrosis, and the use of the artificial kidney, the patient died. During this time I thought of continuous drainage of cerebrospinal fluid and

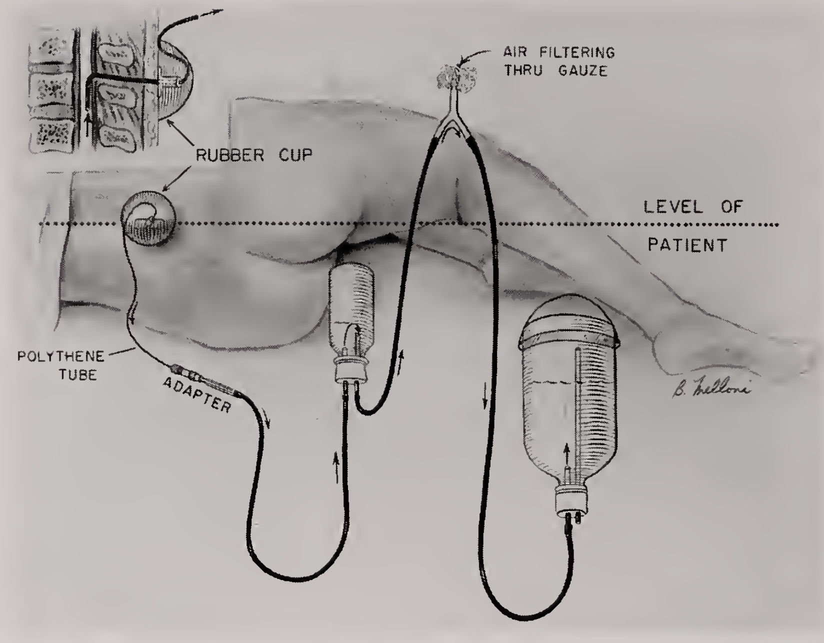

FIG. 1. Method for draining subarachnoid space under controlled pressure.

I requested permission of the attending physicians to employ it, but this was not granted. The necropsy revealed a large amount of fluid in the pleural cavities, generalized edema, and evidence that the renal tubules were regenerating. Had he lived a few more days the kidneys could have functioned again.

A few weeks later a resident removed from a patient a large spinal endodural meningioma located at the level of the fourth thoracic vertebra. It was necessary for him to excise a large area of the dura to eradicate the tumor attachment. This patient developed a subarachnoid sinus through which the cerebrospinal fluid drained so profusely that little urine was excreted. For about a week almost all the fluid excreted passed through the sinus. The arachnoid ureterostomy of Dr. Matson[7] demonstrated that a child could live while excreting large quantities of cerebrospinal fluid. Consequently, I began the attempt to develop a safe method to drain the subarachnoid space under controlled pressure. I have gradually developed the method which I am employing at present (figure 1).

METHOD

A spinal puncture is performed between the third and fourth spinous processes with a no. 14-gauge Tuohy spinal puncture needle. A polyethylene tube, size 3.8 F., about 30 inches long is threaded through the needle after it has been bent at right angles about 2 cm. from one end. The bending is accomplished by dipping this area in hot water. The bent end of the tube is allowed to point downward toward the cul de sac. The tube is properly marked so that the correct position can be effected. The spinal puncture needle is then withdrawn and the tube is anchored to the skin by means of a modified Tuohy-Borst adapter. The ordinary Tuohy-Borst adapter is simply modified by welding a steel flange to the base in order that it may be secured to the skin with adhesive tape or silk sutures. This modified adapter is covered by a rubber hemisphere, and the polyethylene tube is led out through a notch in the border. The other end of the polyethylene tube is connected to an ordinary rubber tube by use of the Tuohy-Borst adapter. This rubber tube leads to an inverted closed bottle placed on a lower level than the patient. Another tube from the closed bottle leads to an inverted Y-glass tube. The vertical prong of the Y-glass tube is covered with sterile gauze. To the other descending prong is attached a rubber tube which leads to an inverted intravenous bottle placed at a lower level. The subarachnoid pressure is controlled by the height of the Y-glass tube. Thus the choroid plexus can be conscripted into service to aid overburdened kidneys in case of an emergency. This method can be used in any hospital or in the home. It requires minimum supervision.

This type of cerebrospinal fluid drainage under controlled pressure has been used on 9 patients. Two of the patients had normally functioning kidneys; 1 was suffering with cardiac decompensation resulting in severe edema; 1 patient, 29 years of age, was in the terminal stage of essential hypertension; 1 patient, 61 years of age, who was suffering with severe arteriosclerosis and psychosis, was also suffering with acute bromide poisoning; 1 patient had a high nonprotein nitrogen content of the serum and was jaundiced; the other patients had severe senile arteriosclerosis with evidence of renal failures. Specimens of blood serum and of cerebrospinal fluid were taken at 24-hour intervals on all patients, and chemical analyses were performed by Dr. Alvin Parrish. We shall report these results in another paper.

RESULTS

Those patients who had normal kidney functions excreted cerebrospinal fluid at the rate of about one-third the quantity of urine. The patient who was suffering with acute bromide poisoning responded immediately to this type of treatment although the sodium bromide content of the blood serum had remained constant at 700 mg. per 100 ml. for the preceding 2 days. The patient with essential hypertension excreted about 800 c.c. of spinal fluid and about 250 c.c. of urine during the 24-hour period. This patient had a blood pressure of about 240/160. He had papilledema and retinal hemorrhages. All the other patients excreted cerebrospinal fluid at the rate of 250 to 650 c.c. during 24 hours. The patient who was jaundiced excreted bile salts in the cerebrospinal fluid readily. The necropsy of the patient with severe hypertension revealed necrosis of the tips of the cerebellar tonsils.

COMMENT

The pressure of the subarachnoid spaces should be maintained at 20 to 30 mm. of water. This was necessary to prevent the nerves of the cauda equina from being sucked against the openings of the tubes and thus obstructing it. The cerebrospinal fluid pressure shou'd be lowered gradually, because any sudden change produces headaches and results in slowing down or cessation of excretion, presumably due to shock of the choroid plexus.

The choroid plexus is normally a part of the blood-brain barrier, and according to Cushing[9] it differs from a semi-permeable membrane to the extent that some agents noxious to nerve cells are prevented from entering the liquor even though the chemical products of such agents would permit passage. Some of these agents are the salicylates, bile pigments, iodides, and ferments. The cerebrospinal fluid of the only patient who was jaundiced contained bile pigments. Furthermore, Dr. Parrish[14] stated that the chemical analysis of the cerebrospinal fluid under these conditions would indicate that it had been formed by dialysis. Therefore, it appeared to me that the threshold of the blood-brain barrier had been lowered by the continuous subarachnoid drainage at 20 mm. of water pressure.

This apparatus for continuous drainage of the cerebrospinal fluid can be used to study the pressure within the subarachnoid space during various conditions and at various times. It can be used to introduce fluids into the subarachnoid space to treat intracranial hypotension. It has proved to be of great value to determine beforehand whether an arachnoid-ureterostomy will prove successful. It has been my experience that continuous cerebrospinal drainage under controlled pressure did not always relieve intraventricular pressure in patients presumed to be suffering with communicating hydrocephalus. In each of 2 patients in this category surgical exploration revealed the presence of an Arnold-Chiari syndrome.

SUMMARY

The primary problems of the circulation of the cerebrospinal fluid are represented by hydrocephalus. The obstructive type of hydrocephalus has been treated by using a rubber catheter to drain the fluid from the lateral ventricle to the cisterna magna or to the cervical epidural spaces. The communicating type of hydrocephalus has been treated by draining the excess fluid into the epidural space with a small polyethylene tube. This tube can be placed in proper position by means of a special spinal needle after lumbar puncture. The procedure may be repeated as often as required until the patient can develop an adequate absorbing mechanism. It appears that if the pressure of the cerebrospinal fluid is maintained at a normal level the patient can develop adequate subarachnoid villi to effect absorption.

A method for draining the subarachnoid space under controlled pressure has been described. This method has proved valuable to treat bromide poisoning and to assist the overburdened kidneys during an emergency, particularly as a means of eliminating fluids and sodium chloride from the body.

Continuous drainage of the cerebrospinal fluid at a pressure of 20 mm. of water appears to lower the threshold of the blood brain barrier. For that reason, if a patient is suffering with poisoning from an agent noxious to the nerve cells and ordinarily withheld from the liquor, this type of treatment is contraindicated.

This method of continuous drainage of the subarachnoid spaces under controlled pressure is simple, requires little supervision, and can be effected in any hospital or in any home.

BIBLIOGRAPHY

1. Magendie, F., cited by Cushing, H.: See ref. 9.
2. Quincke, H.: Verhandl. d. Cong. f. innere Med., Wiesb., 1891, **10**, 321.
3. Dandy, W. E., and Blackfan, K. D.: J.A.M.A., 1913, **61**, 2216.
4. Weed, L. H.: J. Med. Research, Bost., 1914–15, **26**, 51.
5. Schaltenbrand, G.: Lancet, 1953, **1**, 805.
6. Dandy, W. E.: Ann. Surg., 1918, **68**, 569.
7. Ingraham, F. D., and Matson, D. D.: Neurosurgery of Infancy and Childhood. Springfield, Ill.: Thomas, 1954.
8. Fulcher, O. H., and Enomoto, F.: S. Forum, 1957, **8**, 516.
9. Cushing, H.: The Cameron Prize Lecture: The Third Circulation, in Studies in Intracranial Physiology and Surgery. London: Oxford, 1926.
10. Putnam, T. J.: New England J. Med., 1934, **210**, 1373.
11. Scarff, J. E.: Am. J. Dis. Child., 1942, **63**, 297.
12. Fulcher, O. H.: S. Forum, 1955, **6**, 481.
13. Page, F.: Lancet, 1953, **1**, 1.
14. Parrish, A.: Personal communication.

MYASTHENIA GRAVIS IN CHILDHOOD*

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MYASTHENIA GRAVIS has long been recognized in the adult, and the diagnosis by means of Prostigmin is well established. The disease is manifest in weakness of the skeletal and extra-ocular muscles caused by a myoneural block. It seems probable that in the normal individual acetylcholine may break up and reform at the myoneural junction with sufficient rapidity to allow for repeated and continuing muscular activity. On the other hand, the myasthenic individual seems to have some interference with the breakdown and resynthesis of acetylcholine, possibly due to the presence of a curare-like product. Prostigmin allows the proper reformation of acetylcholine, thus making it invaluable in the diagnosis and treatment of myasthenia.

For many years it has been stated that myasthenia is rare in childhood, and this is indeed true. However, an awareness of its existence has led to its recognition with increasing frequency. The first cases of myasthenia gravis in childhood were reported by Wilks in 1877 and Erb in 1879, and prior to 1900 only 8 cases had been reported. During the interval to 1950 less than 50 cases had been reported, but since 1950 an additional 175 cases may be found in the literature, bringing the total through 1956 to 217 cases.

An excellent review by Teng and Osserman[1] in 1956 has summarized the knowledge of childhood myasthenia and added 21 cases. The authors divided childhood myasthenia into the neonatal and the juvenile forms.

Neonatal myasthenia gravis occurs invariably in infants born of myasthenic mothers, though only a small proportion of such mothers give birth to myasthenic infants. The condition is manifest at birth or soon thereafter by symmetrical general muscular weakness causing limpness, feeble crying, inability to suck, and difficulty in swallowing and breathing. Ptosis and ocular paralyses are rarely present. The condition lasts from several hours to several weeks, with complete recovery unless complications occur. The use of Prostigmin, Mestinon bromide, and supportive treatment are helpful. I have not seen a case of neonatal myasthenia gravis.

Juvenile myasthenia gravis occurs more frequently than the neonatal form. Symptoms are first noted in children from a week to 17 years of age, born invariably of non-myasthenic mothers. Although the occurrence of myasthenia in siblings is rare in the adult form of the disease, it is not rare among siblings of juvenile myasthenics. The cause for this is not evident.

Symptoms and signs of juvenile myasthenia gravis include (1) bilateral ptosis in 85 per cent (as compared with 45 per cent in the adult form), (2) bilateral symmetrical paralyses of the extraocular muscles in 66 per cent (compared with a total of 45 per cent in adults, only a few of whom are bilateral and symmetrical), (3) weakness of the facial muscles in almost all cases, (4) difficulty in swallowing in about 50 per cent of all cases, and (5) general physical weakness and tiring.

The diagnosis of myasthenia gravis in childhood is primarily dependent upon an awareness that myasthenia may occur in children. I was not so aware until seeing a film† 2 years ago, demonstrating such cases. Although the disease may simulate intracranial injury and the bulbar form of poliomyelitis, the diagnosis is definitely established by noting an immediate improve-

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† From the Myasthenia Gravis Foundation, New York, N. Y.

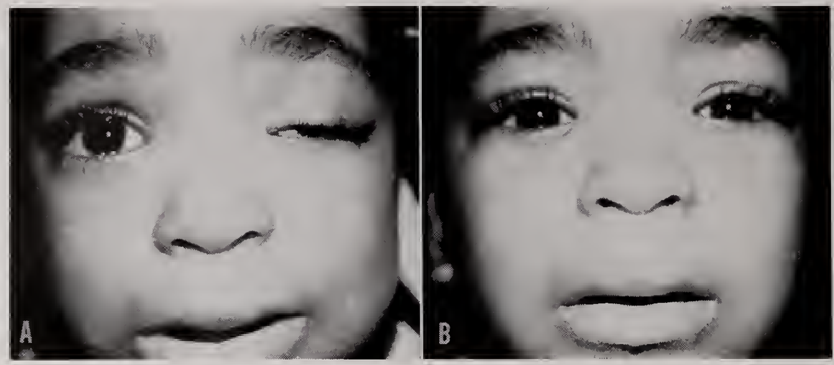

Fig. 1. Case 1. (A) Ptosis, O. S., before Prostigmin; (B) same patient 15 minutes after Prostigmin.

ment in the signs and symptoms after the administration of Prostigmin or Tensilon,[2] while none occurs in the other 2 conditions.

The treatment consists of the use of oral Prostigmin, 15 to 150 mg., depending upon age, tolerance and dosage necessary to produce the desired effect. Gastrointestinal cramps and diarrhea are not infrequent unpleasant side-effects. More recently Mestinon bromide would seem to give more prolonged effect and fewer unpleasant side-effects. Thymectomy, which has been recommended by some and decried by others, would seem to be helpful in females under the age of 35 years but not in other cases.

Fortunately, the prognosis is better in children than in adults. Remissions are much longer,[1, 3] the muscle involvement is more often limited to or largely affecting the ocular muscles, and the mortality rate is lower than in adults.

Report of Cases

Case 1.* W. S., a colored female aged 2 years, was first seen in the Eye Clinic of the Children's Hospital in November 1956, complaining of ptosis of the left upper lid of 2 weeks' duration. There was no history of preceding or accompanying illness or injury. Physical examination, laboratory tests, and X-ray examinations revealed no abnormality except in the eyes and some depression of the deep tendon reflexes on the left side.

Examination of the right eye showed a slight ptosis of the upper lid, normal pupillary reaction, apparent good vision, and normal ocular movements. The left eye revealed a marked ptosis of the upper lid, normal pupillary reaction, apparent good vision, marked paresis of the left medial rectus muscle, definite moderate paresis of the superior and inferior recti, questionable paresis of the left superior oblique, and good movement of the left lateral rectus. The ocular fundi were normal in each eye. A diagnosis of left third nerve palsy (etiology unknown) was made (figures 1-A and B and 2-A and B).

Subsequent studies by the neurology service, including arteriograms, neuroencephalograms, and flat X-ray films were all within normal limits. However, examinations by the eye service revealed a remarkable improvement in the ptosis and the ocular paralysis 15 minutes after the injection of 0.5 mg. of Prostigmin and $\frac{1}{350}$ grain of atropine. The diagnosis of infantile myasthenia gravis was made. Subsequent questioning revealed that the ocular symptoms were exaggerated by fatigue, but no general fatigability was noted.

The patient was placed on 7.5 mg. of Prostigmin twice daily, which was subsequently increased to 7.5 mg. 3 times daily. Symptoms were improved depending upon the faithfulness of taking the medication.

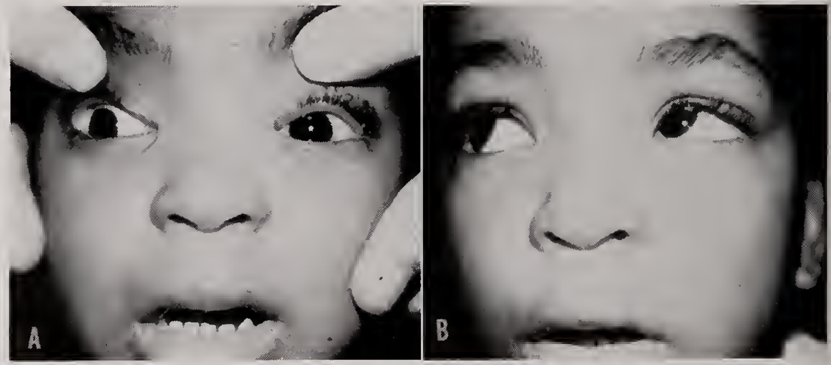

Fig. 2. Case 1. (A) Paralysis of left medial rectus before Prostigmin (patient attempting to look to the right); (B) marked improvement in left medial rectus 15 minutes after Prostigmin.

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* Demonstrated at a clinic of the American Academy of Pediatrics in Washington, D. C., 1956, by Drs. Nicholas Pistolas and George Hamrick.

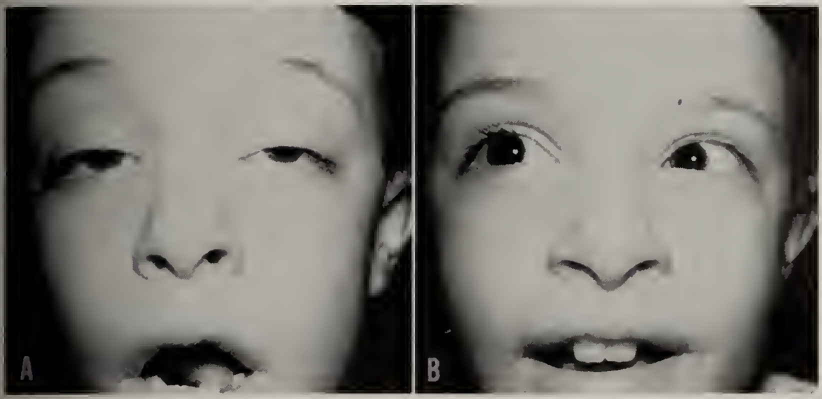

FIG. 3. Case 2. (A) Ptosis, O. U., before Prostigmin; (B) same patient 20 minutes after Prostigmin.

Comment. The only findings of significance were ocular, and only through the awareness of ophthalmologists (Pistolas and Hamrick), who had recently viewed the film on myasthenia gravis, was the diagnosis made.

Case 2. D. D., a white girl aged 8 years, was first seen as a private patient in March of 1957, referred by Dr. Charles Brown of Norfolk, Virginia. The presenting complaint was ptosis of both upper lids and variable strabismus of the left eye of 2 months' duration. On further questioning it was noted that ptosis and diplopia had occurred 2 years before, being worse in the afternoon but clearing spontaneously after 3 weeks. The present episode occurred following an upper respiratory infection and has been noted especially with fatigue. However, it should be noted that the patient suffers no general weakness, is not unduly fatigable, and takes ballet regularly without difficulty.

The family history is interesting in that the father had strabismus as a child and underwent 2 operations. He now has some weakness of upward gaze in each eye. A paternal uncle has a drooping upper lid which is worse on fatigue, and the paternal grandfather may have had a similar condition. The patient was a premature baby and received multiple transfusions during the first week of life because of jaundice induced by Rh incompatibility.

Examination on March 25, 1957 revealed a healthy, alert girl having bilateral ptosis (greater on the left side), marked frontalis action, and a marked paresis of the left medial rectus with some weakness of both inferior oblique and both superior oblique muscles. The facial muscles were somewhat relaxed (figures 3-A and B and 4-A and B). The vision was normal in each eye, the refractive error not significant, the pupils reacted normally, and the ocular fundi were normal.

A tentative diagnosis of myasthenia gravis was made. Twenty minutes after the administration of 0.5 mg. of neostigmine intramuscularly the ptosis had disappeared, the left medial rectus had normal movement, the facial expression was alert, and only slight weakness of the extra-ocular muscles remained.

The patient was referred to Dr. David Grob, Johns Hopkins Hospital, for confirmation and management. Dr. Grob's findings were similar to the above, and no evidence of peripheral or other bulbar myasthenia gravis was found. The child was placed on 15 mg. of Prostigmin with atropine 0.4 mg. 3 times daily. The ptosis and ocular paralysis were definitely improved. The patient was then put on Mestinon bromide, 60 mg. 3 times daily (because of cramps and diarrhea from the Prostigmin) and was told to reduce the medication as symptoms and signs allowed. Five months later (September, 1957) an improvement in the ptosis and diplopia was noted.

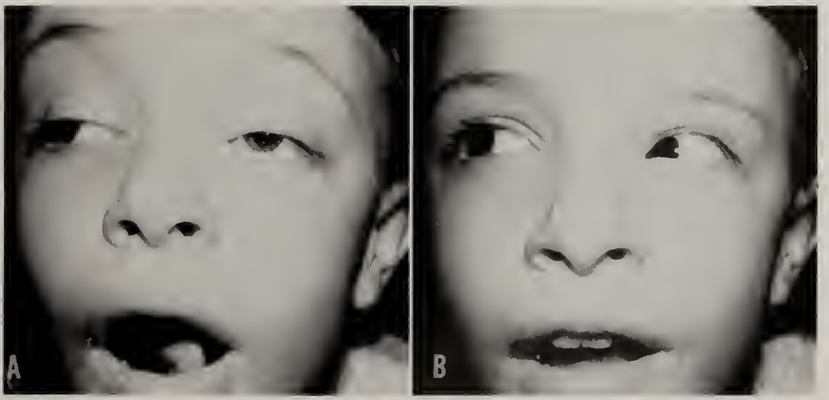

FIG. 4. Case 2. (A) Paralysis of left medial rectus before Prostigmin (patient attempting to look to the right); (B) marked improvement in left medial rectus 20 minutes after Prostigmin.

Once weakness of the legs was noted. Otherwise activities have been entirely normal.

Comment. A patient for whom eye exercises had been ordered and for whom surgery had been considered was found to have ocular myasthenia gravis. The course under treatment with Mestinon bromide has been satisfactory. As to prognosis, Grob[3] may be quoted: "The prognosis in most of the children we have followed has been fairly good. One cannot predict this early whether or not the myasthenia gravis will remain in the eyes or will become generalized. I think there is a good chance that it may remain in the eyes, though only time will tell. Most of the children with this disease have done quite well and have had prolonged remissions, lasting many years. One of our patients who had severe myasthenia gravis at the age of 3 has been entirely well for the past 20 years and is now about 25 years old. It has been less common for the myasthenia gravis beginning this early in life to become rapidly progressive."

Case 3. D. H., a Negro child aged 3½ years, was first seen in the Eye Clinic at Children's Hospital 4 months ago. The presenting sign of "markedly droopy lids of each eye coming on 10 to 15 minutes after awakening" had been present for at least 18 months and possibly longer. The general health had been good, and there was no evident general fatigability. The family history was not helpful.

Examination revealed an apparently healthy child who had marked ptosis of both eyelids, no lid fold, some frontalis overaction, and a backward head tilt (to see from under the ptotic lids). The extra-ocular muscles showed questionable weakness but no frank paresis. The general physical, neurologic, X-ray, and laboratory examinations were within normal limits.

When intramuscular Prostigmin and intramuscular Tensilon were given on different occasions no appreciable effect on the ptosis was noted. However, when Tensilon was given intravenously, an almost immediate transitory improvement in the ptosis was noted. Treatment has been equally difficult, the patient showing a slight improvement with 7.5 mg. of Prostigmin 4 times a day. Further studies in treatment are being carried out.

Comment. This patient demonstrates myasthenia gravis almost solely limited to the lids. The initial impression is that she will be resistant to treatment and difficult to stabilize on satisfactory treatment.

SUMMARY

Three cases of myasthenia gravis in children have been presented. Emphasis has been placed upon the facts that: (1) Myasthenia in children is not uncommon; (2) the lids and extra-ocular muscles are most commonly involved in children and, at times, exclusively so; (3) any child having unexplainably variable ptosis or paralysis of the extra-ocular muscles should be tested with Tensilon to rule out myasthenia gravis, and (4) the prognosis is better in children than in adults.

BIBLIOGRAPHY

1. Teng, P., and Osserman, K. E.: Studies in myasthenia gravis: neonatal and juvenile types. J. Mt. Sinai Hosp., New York, 1956, **23,** 711.
2. Osserman, K. E., and Teng, P.: Studies in myasthenia gravis—a rapid diagnostic test; further progress with edrophonium (Tensilon) chloride. J.A.M.A., 1956, **160,** 153.
3. Grob, D.: Personal communication.

ADDITIONAL REFERENCES

Cogan, D. G.: Neurology of the Ocular Muscles, 2nd ed. Springfield, Ill.: Thomas, 1956, p. 37.

Duke-Elder, S.: Textbook of Ophthalmology, Volume IV: The Neurology of Vision, Motor and Optical Anomalies. St. Louis: Mosby, 1949.

Ford, F. R.: Diseases of the Nervous System in Infancy, Childhood, and Adolescence. Springfield, Ill.: Thomas, 1944, p. 1030.

Grob, D.: Course and management of myasthenia gravis. J.A.M.A., 1953, **153,** 529.

Walsh, F. B.: Myasthenia gravis and its ocular signs; review. Am. J. Ophth., 1945, **28,** 13.

MANAGEMENT OF THE PARANOID SCHIZOPHRENIC WITH PSYCHOTHERAPY

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IN A RECENT issue of the MEDICAL ANNALS there appeared the following statement: "Patients with paranoid schizophrenia are among the most difficult to manage of all the mentally ill. The prognosis is usually grave; rarely do symptoms respond even to such heroic measures as shock therapy or psychosurgery. The following case history suggests that suitable ataractic medication holds promise for such patients, despite the chronic nature of the disease and the apparent hopelessness of their condition."[1] Unfortunately, this is a representative, acceptable and conventional opinion of contemporary psychiatry. The first sentence is undoubtedly correct in that the paranoid psychosis is a formidable and complex challenge. The rest of the paragraph completely ignores the fact that there is an increasing body of knowledge concerned with the paranoid psychosis as an end-product of unhealthy and unsatisfying ways of thinking about and conducting personal relationships. A therapeutic approach, psychotherapy, is based on this body of knowledge and is concerned with rectifying or resolving these defeating habits by itself utilizing personal or human relationships.

For an understanding of the psychotherapeutic approach one must first abandon the notion that this human phenomenon is the result of inhuman, inexplicable, or magical forces beyond comprehension. Rather, we start with the assumption that the natural laws of cause and effect are operative with the known (or capable of being known) processes involved in being human. As with any human, we can say that the patient and his predicament arise from a combination of his native endowments and his experiences both in formative and later years. At present there is so little evidence of specific deficiencies or defects of native endowments in this illness and therefore little possibility of remedying them, that we must practically operate on the assumption that this factor is present but irreversible. However, pathologic ways of relating with people can be regarded, in the absence of gross organic brain defects, as having early origins and uses based on experiences and memories and are therefore reversible, or potentially so, and capable of being studied by relatively known methods.

Evidence shows that the child who is later to become psychotic is reared in a family in which the parents themselves are grappling unsuccessfully with their own personal relationships.* As a result, the child is not supplied with an optimum (for him) of parental security, affection, concern, guidance, and other basic human needs. In addition, he is deprived in a characteristic fashion by being made, in a more or less covert way, the scapegoat of his parents' frustrations and aggressions. In order to survive and protect himself from the pain and disappointment of this hostile environment, the helpless child naturally chooses methods which are childish and helpless. He turns his anger against himself, becomes withdrawn and submissive, conceals his feelings from others and subsequently himself, loses his awareness of others, and resorts to fantasy life.

The helpless child also learns that direct anger and assertiveness are dangerous and attempts to deal with these matters by choosing weapons which in themselves appear helpless, often imitating the parents' infantile hostility and thereby avoiding detection, using helplessness, submissiveness, deviousness, obstructionism, and manipulation. Based on these experiences, the child grows into adulthood with a set of expectations and concepts: that human relationships are either a matter of infantile helplessness or ruthless, perhaps disguised aggressiveness, that there is little chance of dealing directly with others, and that the best way to get along is to maintain distance from them. These values were seemingly useful to the child; in terms of the adult world they are useless, paradoxical and self-defeating methods of attempting satisfactions of needs for intimacy, trust, tenderness and self-respect. The adult thus equipped with this psychologic orientation may survive without becoming psychotic usually as long as he is able to maintain effective distance from his fellow man; he may do so by being a recluse or an odd character, by being involved in or provoking relationships which are shallow, difficult or disappointing, and by sometimes employing the use of somatic symptoms as a defense.

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* This is a brief statement of the psychoanalytical viewpoint as modified by Harry Stack Sullivan and others.

The prospect of psychosis arises when the patient is tempted to satisfy natural needs for intimacy, and his previous mechanisms, based on effectively maintaining distance are no longer effective. He is then exposed to the same vaguely remembered threats of his helpless childhood and, not knowing either the source or the cure of his fear, responds with overwhelming fear or panic. Caught in this untenable struggle between intimate needs and associated dangers, and in common with other panics, he becomes involved in what might be thought of as a wild (psychologic and sometimes physical) thrashing about. In attempting to achieve safety and extrication from his dilemma, he unwittingly hits upon the solution which is peculiar to him and his background—the delusional system. In this he actually experiences himself to be the object of inordinate and magical attention of an increasingly large and complex group of people which is solely occupied in bedeviling or persecuting (sometimes helping) him. The symptoms of panic abate after formation of the delusions. This is understandable because the patient has contrived a situation which serves many purposes toward the achievement of comfort and removal from danger. Future movements toward temptation are stopped, his own feelings of anger are neatly disposed of by being seen as coming from others, his feelings and fears of insignificance are replaced by his importance in the delusions, and he has achieved a state of isolation. This isolation results in helplessness and dependency, and he must be taken care of by his family, friends or the hospital.

Unless there has been a significant interpersonal intervention, the natural course of the psychosis is toward one or a combination of the following possibilities. The patient becomes increasingly occupied with his creation (the delusions) and remains psychotic or isolated, either in or out of a hospital. He may recover from his delusions and lead an extremely isolated existence, or having recovered he then pursues a shaky equilibrium of hostile and unrewarding helpless and dependent relationships, sometimes with the aid of somatic symptoms, but with the risk of recurrence. Uncritical statistics notwithstanding, the success of treatment by hospitalization, electric shock treatment, insulin therapy, tranquilizers and so on does not change the grim possibilities of the clinical sequence as given above. Logically, these are not likely to be changed unless there has been some kind of intervention or interruption in unfortunate patterns of living and until something has happened to the patient to teach him that there are more rewarding and less destructive ways of conducting his life.

Psychotherapy may be thought of as the only predictable and intentional method at present which attempts to study and alter a patient's unsuccessful habits of living on a cause-effect basis. Contrary to the philosophy of most medical therapy in which the patient is the passive recipient of treatment by the physician (the doctor removes an appendix, he gives electric shock treatment, he injects tranquilizers), psychotherapy is undertaken with the physician as collaborator, but the patient is the initiator, the furnisher of "laboratory" data, and the mediator and evaluator of treatment. Technically, therapy ensues by human means in which patient and physician enter a series of conversations for the purpose of understanding and interrupting patterns of self-defeat hitherto believed mysterious, using as data thoughts, feelings and information pertaining to past and present personal relationships. Because psychotherapy of this illness is relatively new and because of certain complexities of the patient's relating due to the illness itself, psychoanalytic understanding is used but in a special context, and the therapeutic technics require modification. However, dynamic therapy toward resolution of these unsuccessful living patterns is possible, and several cases will be presented in order to demonstrate a psychotherapeutic approach.

Illustrative Cases

Case 1. A 24-year-old man, under considerable pressure, appeared at my office without an appointment and pleaded that he be seen immediately. This was not possible, but as is my practice, I arranged to see him the same day. He said that for a few months he had become markedly and almost unbearably anxious and for the past week or so had noticed that his appearance was changing, that people were looking in peculiar ways at him and had taken to whispering about him in critical and derogatory ways, and that he was beginning to think there might be some organization behind this. He was not certain about the validity of his experiences and felt confused and desperate. From subsequent interviews it was learned that he was the only son of a mother widowed when he was 5 and that she was a somewhat difficult and dominating woman. He lived with her in the Midwest, completed high school, and worked for a few years until his induction into the Army, where he saw combat and did well. After discharge he returned to live with his mother but was unable to resume work for several months because of distress. He finally took a job in which he was disinterested but became more tense and uncomfortable around his mother and his serious girl friend, and because of this left his home town and came here. He found work but became increasingly lonely and withdrawn, finally dating a chorus girl in a burlesque show who was involved with a number of men and who promised the patient intercourse and marriage while borrowing money from him. He was on the verge of commiting himself to marriage to her. Examination of his other relationships in the past and present showed a consistent pattern of masochism* associated with his helplessness and inability to assert himself.

We met for 13 hours, several times weekly at first, then tapering off in the second month of treatment. In our first sessions I frankly confronted him with the facts of his illness by pointing out that, in certain areas, his perceptions were mistaken and sick and this was due to difficulties in his methods of relating with people. I spoke of the possibility of hospitalization if this process was not interrupted and outlined a treatment program which he was free to accept or reject. The patient hesitantly asked for therapy and returned with protestations of helplessness, inability to think, and demands for drugs. After a consistent firmness on my part in brushing aside these distractions, and insisting that he continue working, he settled down to serious discussions of the problems involved and the anger engendered in his personal relationships, and we dwelt on his harsh opinion of himself and his helplessness. With the expression of his anger and subsequent asserting himself and giving up of his chorus girl, his delusions disappeared, to be replaced by anxiety which was later discussed and relieved. For certain reasons, some of them valid, he elected to discontinue therapy after this improvement. I have heard from him several times in the past few years. He returned to his home town after dealing more successfully with the problems he was involved with here, took active steps to change the nature of his relationship with his mother by not allowing her to dominate him, went into a line of work that was to his liking, and married his old girl friend.

Comment. Although this patient was allowed to discontinue his therapy and utilize his own resources—probably a wise move, this did have the disadvantage of limiting data concerning him. However, it is known that prior to his treatment he was attempting to deal with his personal relationships with psychologic tools which were infantile and ineffectual toward the attainment of adult needs. The clinical picture was that of the incipient stages of paranoid schizophrenia, and it is apparent that the patient utilized treatment, not only to recover from the acute psychosis, but also as a constructive and possibly lasting intervention toward healthy methods of dealing with personal relationships. This case illustrates the advantages of therapy early in the course of illness when anxiety and insight are still present, and the patient still functioning, and before the crystallization of psychotic defenses with continuing isolation and regression.

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* In psychiatric parlance, being a glutton for or inviting others to punish or mistreat.

Case 2. I was called by a referring physician to deal with the problem of a 30-year-old wife of an Army officer and mother of 2 children who for the past 3 months had been increasingly preoccupied with thoughts of her husband's unfaithfulness and beliefs that she was the victim of a plot in which people were persecuting her for being stupid and mean. She had withdrawn completely from social relationships and duties and responsibilities of the home. The husband had originally asked for professional help, and the wife had stubbornly refused to enter treatment or see a psychiatrist. I suggested that both husband and wife be seen by the physician, that she be specifically informed about the nature and consequences of her illness and told that treatment was available if she wanted it, and that the husband see me. On meeting the husband, I obtained a history of the illness and marital problems. It was apparent that the husband had difficulty in asserting himself, had been paralyzed by his wife's illness, and was, by being increasingly attentive and indulgent with her symptoms, encouraging her; in addition, the husband himself was disposed to dealing with his dissatisfactions by resorting to cold and infantile withdrawal. Some of this was indicated to him, and he was advised to be firm with his wife in his dissatisfactions, specifically to increase his demands that she resume her responsibilities and stop her sick behavior, and also that he remind her that she was sick and that treatment was available for her. He was then referred to a colleague in order to carry out this program and deal with his problems.

A week after the husband's change in tactics, the patient called me for an appointment and came herself to meet with me. She was vague about her illness and offered many excuses for not going into treatment. I firmly discussed her symptoms, the seriousness of her position, and the possible outcome, brought up the question of marital problems as possibly being related and a subject for future conversations, and said that her treatment was a matter of her own responsibility but that I would be available if she wished to see me further. She called later in order to start a therapeutic program. After some early attempts at evasion by pleading helplessness and requesting drugs, which were denied firmly by me, she discussed some of her problems.

The patient was a relatively naïve person of limited intelligence who came from a crude and irresponsible family in which the mother dominated a helpless and alcoholic father, the patient frequently being the physical target or indiscriminating abuse. She grew up with strong needs for approval and importance which she attempted to deal with by being ingratiating and ambitious; when faced with anger or dissatisfaction with others she could only withdraw and pout. In her relationship with her husband she felt inferior and insecure and avoided direct anger or arguments at all costs. She felt a need for his support and reassurance and help in dealing with the children during his long absences, but when he was at home she was unable to cope with his lack of loyalty to her in regard to his own family's humiliating treatment of her, his passivity in family matters, and his cold withdrawal from her.

The husband had undertaken a series of consultations with his own psychiatrist and, as a result, had become aware of, and remedied his own passivity and isolation and had increased his ability to be articulate with his wife.

Under treatment the patient discussed her needs and anger at mistreatment by her parents and husband with considerable support from the therapist, and she was encouraged to communicate this and to assert herself. This was followed by clinical improvement, her delusions and apathetic and withdrawn manner disappeared, to be replaced by a lively and, at times, argumentative personality, and she quickly resumed her responsibilities and work in the home. Both husband and wife, for the first time in their marriage (and probably for the first time in their lives), were able to discuss frankly mutual sources of friction and disagreement and to arrive at some satisfactory conclusions after this.

After 10 sessions the patient became less enthusiastic about treatment, and because both partners seemed to be making a genuine and lasting move toward healthy dealing with their problems, and also because of the patient's limitations, I did not press the matter. The last report some 2 years later disclosed that both partners were getting along well, and it is likely that, several years later, they are continuing to do so.

Comment. This is a situation in which a limited amount of therapy early in the illness had the effect of interrupting an increasingly pathologic clinical picture. It is interesting to note the ways in which the husband was, by his withdrawal and indulgence, encouraging his wife's illness. Because of this I have found it helpful, and at times mandatory, to have significant member(s) of the family in therapy first in order to interrupt this mechanism. When examined in a different light, what seems to be (and in actuality is) solely a matter of severe psychosis with the probability of eventual hospitalization is really a matter of quite ordinary marital unhappiness being intensified and increased because of both partners attempting to use helpless and infantile maneuvers. When more adult and direct methods, obtained through treatment, of dealing with these problems were used, the results were more satisfying, and there was, of course, little necessity to resort to the helpless and ineffectual methods which eventuated in the psychotic reaction of one partner. Whatever the degree of placidity attained by somatic methods of treatment, there is nothing inherent in that kind of therapy which interrupts the infantile and defeating methods of thinking previously used by both partners.

Case 3. A 47-year-old single professional man was referred to me because he had become increasingly disturbed and had had a recurrence of psychotic symptoms. Two years before he had begun to feel increasingly disturbed and panicky, this feeling culminating in his belief that he was the object of a hostile and punitive gang which was observing him and broadcasting strange messages to him. He was hospitalized for this acute paranoid psychosis several months after his original symptoms. He was treated with sub-shock insulin and was discharged 6 months later, showing considerable social improvement. After discharge he resumed work and tried to deal with recurring paranoid thoughts and panic by attempting control of them, and he pursued a grim reclusive existence in which he had the barest of contact with people in his work and church.

The patient was the only son of a cold and controlling mother and a mild and helpless father whose relationship was distant and complex. Except for occasional episodes of bizarre and violent temper tantrums, the patient's ordinary *modus operandi* was that of a meek, agreeable and somewhat ingratiating person who had a few superficial servile relationships with men, with even more distant relationships with women, these being confined to 2 long flirtations with no physical contact.

On our first meeting he was obviously disturbed and delusional although with some insight. He was asked what his goals in treatment were; fortunately, he wanted not only to avoid a recurrence but wished vaguely for more satisfactions in living. I refused his requests for sedatives, made explicit statements about the symptoms and nature of his illness and his distortions of reality, stated that I could not guarantee a cure, recommended that he continue working, and outlined a program of intensive treatment.

Treatment lasted for a year and a half and was characterized by stubbornness, helplessness, rejections and despair, and in general was difficult and trying.

The first portion of treatment consisted in calling the patient's attention to his anger, his unawareness of it, and his helplessness in his relationships. This was followed by a period in which he came out of his shell and expressed and asserted himself, first in his work and later in his social relationships. After 9 months of continued improvement he became increasingly hostile in a subtle way in the treatment relationship, and despite numerous interpretations this behavior increased.

As this behavior increased it was followed by the development of a full-blown psychotic reaction which was not unexpected. At the moment when it seemed that hospitalization could no longer be avoided the problem was handled vigorously and firmly by direct confrontation to the patient of the significance and meaning of his behavior. He responded with direct verbalization of his anger toward the therapist, and within a week of this exploration he had recovered. Following this the patient, for the first time in his life, took an active and aggressive interest in women, with the attainment of satisfaction. Several months later the patient again showed mild evidence of secretiveness and evasion, but attempts to investigate this were met by his stating that I was making unfair demands upon him; then, by mutual agreement, it was decided that he would discontinue treatment indefinitely. I heard about him indirectly for 2 years after this; he apparently was doing well, was out-going socially, and had been "courting" seriously for some months.

Comment. This situation involved a man whose life was, for the most part, spent in isolation from his fellow man. Intimacy must have held some powerful dangers for him, since he avoided it so long, and, as was to be expected, medical treatment did little to resolve the problem for him. Without implying that the patient is completely cured or that further help will not be necessary, there is no question that psychotherapeutic intervention did interrupt to some extent an endless and continuing cycle of infantile thinking, self-defeat, and isolation. Of interest in this treatment was the necessity for reality confrontation, firmness, and also the origin, with resolution, of an acute psychotic episode while in treatment.

Case 4. A 38-year-old single woman came to see me for "a little help with some minor problems." She had been released from a mental hospital against medical advice a month before. Her overt illness began with increasing tension, feelings of being disturbed, difficulty in her work, and social withdrawal and isolation at least 2 years before. She had been hospitalized a year before after being acutely psychotic and delusional for several months. Her acute psychosis had taken the form of being quite disturbed with bizarre actions based on the belief that she was being invisibly and indirectly courted by a man, seen only once by her, who was also the head of an increasingly large and powerful group who were solely occupied in attempting to help, guide and punish her by devious and magical means. While in the hospital she was quiet and unobtrusive; treatment consisted of tranquilizers with occasional interviews characterized by lack of enthusiasm and movement. Under this régime her outward appearance improved to the point where it would have been impossible to retain her against her will, although it was thought that she was still markedly sick, and the patient signed herself out. During our initial interviews it was apparent that she was still very disturbed and delusional with practically no insight, and it would have been legitimate to have hospitalized her.

The patient was the older of 2 children, a brother being 5 years younger. The mother was dominant over the whole family, overprotective, outwardly cold, and very "busy," while the father was relatively mild and continually occupied with keeping peace and not wanting to be bothered by any family problems. The patient was always a quiet and timid person, knowingly conducting her relationships on an arm's-length and overly modest basis. She left home to attend college, returned to her home town for a while, and then left permanently for this area, working and being self-supporting in a technical field. Several years before she had had her first and only romance, with a married man, which was brief and disappointing. It was after this that, although she was advancing in her work, she became increasingly withdrawn and limited her relationships to older women with whom she acted like an ingratiating and inoffensive child.

The patient called me several times, on the spur of the moment, for "a few small things I want to talk about" and during these times it was obvious she was getting more disturbed. Finally, and despite her remonstrances against steady treatment, I told her in a frank and vigorous manner what her sickness was, the probability of hospitalization, and the unfair demands she was making on me by placing the responsibility of illness upon me without coöperating with me, after which I suggested that she either stick to consulting with her delusional friend or else see me for treatment on a regular and planned basis since I was getting tired of being played off against a delusion. I also made it clear to her that she would have to return to work in the near future if she wished treatment from me. She was furious at me, and, despite attempts to get me to change my opinion, elected to return and take the matter of her treatment seriously. She spoke of her anger, her parents, and her disappointments, after being pried away from her preoccupation with the delusions, and started a social life and attempts to get a job. In this she was disappointed, and her initial improvement did not continue.

The patient's parents were requested to stay with her and were referred to a colleague for assistance in helping her. The help offered to them was that they not treat the patient as if she were sick but instead to insist that she face reality, arguments, and her responsibilities. For the first time in her life the patient saw and experienced her parents in a realistic fashion and was able to deal directly and assertively with them with healthy disagreements. During this time she obtained a job which was more responsible and demanding than her previous one, and after a stay of several months her parents returned to their home.

She has now been under treatment for about a year, the treatment emphasizing her present problems and her infantile attempts to deal with them by indirect, denying or evasive methods. During this time she has shown considerably more independence and imagination, there has been little evidence of delusions, there is the slow emergence of some spontaneity and personal convictions, and her social life has expanded. She gave up living alone in order to live with some one her own age and is doing increasingly better in her present job, which involves responsibility and the necessity of dealing with rather complex and delicate interpersonal matters.

Comment. This woman, after a lifetime of little real satisfactions and rigid distance from others, attempted an ineffectual solution by resorting to delusions and psychosis. Rigid spinsters have a habit of remaining so even in the face of lobotomy, shock treatment or drug therapy; nor does psychotherapy provide a magical and easy answer. But the problems of this patient, involving her unsatisfying loneliness, distance and lack of methods of providing self-respect in relationships, are being dealt with seriously, with curiosity, and with some degree of success in her present treatment, which will continue for some time, outside of a hospital and self-sustaining. Of technical interest are the therapist's strict confrontations of reality, firmness and avoidance of indulgence of the patient's desires to be taken care of, the use of parents as adjuncts in the acute situation, and the emphasis on having her work and remain outside of a hospital.

Discussion

This paper presents a viewpoint of the paranoid psychosis as an outcome of unsatisfying or disturbed human relationships. By virtue of early family interactions the child grows up with a set of both conscious and unwitting habits of relating which are ineffective for dealing with his needs and problems in an adult world. When temptation for intimacy arises, massive anxiety ensues and the patient resorts to the psychosis as a way out of an untenable situation. Based on this kind of understanding, which is essentially psychoanalytic, a method of treatment is proposed in which patient and doctor by means of conversations work together in exploring, explaining and attempting to remedy these infantile or defeating methods of dealing with human relationships.

Four cases illustrating psychotherapy of paranoid psychosis have been presented; the patients showed variation in age, sex, duration and chronicity of illness, flexibility of character, and previous successes and development. Therapy was based on psychoanalytic or dynamic understanding, but the technics utilized were modified. There was activity of the therapist in confrontation of reality distortions and reality demands,[2] firmness especially when dealing with helplessness, and interpretation of the patient's subtle hostility and destructiveness. Other modifications included the avoidance of the use of drugs or other organic treatment,* the encouragement of the patient's use of reasonableness and curiosity, the use of the family members as adjuncts, the avoidance of hospitalization for therapeutic purposes, and insistence that the patient continue with his work and responsibility. In these cases the morbid kind of personal relating was more or less successfully interrupted not only with improvement of a superficial nature but also the development of more effective and adult ways of dealing with needs and problems. The information about this method of treatment and results illustrate the possibility of further development and use of this kind of therapy for the paranoid psychosis.

I would like to return to the representative quoted statement with which this paper opened: "... paranoid schizophrenia ... The prognosis is usually grave; rarely do symptoms respond even to such heroic measures as shock therapy or psychosurgery." This statement now makes sense, but in a somewhat different way than intended. If there is any validity to the notion that the psychosis represents a failure of the person to deal with such personal matters as his loneliness or self-respect, it would seem natural that the illness would no more respond to indiscriminate "heroic measures" or assaults than would a case of appendicitis be expected to respond to even heroic measures of massive bleeding or leg amputation. But a word of caution is necessary when seemingly an opposite approach is utilized and the treatment takes the form of indiscriminately "understanding and furnishing love to the deprived patient" in an atmosphere of bathos, for this also can be destructive. Rather, therapy should be geared to assisting the patient in learning about himself, his needs, and the mechanisms by which he defeats himself so as to enable him to obtain whatever satisfaction and self-respect he can in this difficult world.

(*Continued on page 273*)

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* Based on the premise that therapy seeks to enable the patient to study, observe, and to increase his self-reliance in being aware of and to remedy that which is troubling him. This requires the use of intelligence and subtle, discriminating functions, while sedatives or other organic treatment have the effect of dulling these faculties, diverting attention from the pursuit of problems or increasing dependency upon others rather than on one's own self-reliance.

BIOPSY OF THE INTESTINAL TRACT WITHOUT LAPAROTOMY

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DESPITE the rapid advances in the past decade in laboratory aids for the diagnosis of disease, the ultimate diagnosis in many conditions still requires histologic confirmation. This is especially true in diseases of the intestinal tract, including the liver and spleen. It has been found that a combination of endoscopic procedures, suction and needle biopsy instruments, has made a large part of the intestinal tract available for biopsy. Although some of these procedures are blind in that a specific area of the organ is not susceptible of visual approach, as it is in the case of exploratory laparotomy, the knowledge obtained in many of these procedures has proved valuable. It is with this thought in mind that a review of our present biopsy procedures of the intestinal tract, indicating the definite limitations as well as the advantages, will be related on the basis of personal experience with these procedures.

Esophagus

The use of esophagoscopy is, of course, not a recent addition. However, in the past esophagoscopy has been performed primarily by thoracic and otolaryngologic specialists using a completely rigid esophagoscope. In the past 5 years a group of gastroenterologic internists have entered this field because of the advent of an esophagoscope with a flexible obturator that can be passed into the esophagus in the same manner as a gastroscope. This particular instrument also affords a proximal telescope giving 4-diameter magnification which makes the detail of the view of the mucosa quite good. Biopsy specimens of the esophagus are taken with the usual biopsy forceps and are used especially when there is suspicion of a neoplasm. However, at times X-ray films of the esophagus, which are practically always made prior to performance of esophagoscopy, may not reveal all the extent of the lesion in the esophagus as noted by esophagoscopy. In 1 case of scleroderma, X-ray changes consistent with that disease were noted in the lower third of the esophagus. Esophagoscopy additionally revealed a suspicious area of polypoid formation which on biopsy was proven to be a cancer. Thoracotomy indicated that the cancer had spread far beyond the confines of the esophagus and in this particular instance was a nonresectable neoplasm. In the case of a 71-year-old woman with a hiatus hernia diagnosed by X-ray examination, esophagoscopy also revealed a neoplasm and biopsy confirmed the esophagoscopic impression. Occasionally, in cases of esophagitis the appearance of the mucosa is not easy to differentiate from a neoplasm. This is particularly true in chronic esophagitis. Occasionally, leukoplakic areas are seen which may also be difficult to differentiate from neoplasm, and a biopsy is valuable.

Stomach

There are currently available 2 methods of biopsy diagnosis of the stomach. One is the use of a gastroscopic biopsy instrument designed by Dr. Edward B. Benedict. In the hands of several groups of gastroscopists this instrument has proven to be of great value, particularly in the diagnosis of diffuse disease of the stomach such as gastritis, diffuse carcinomatosis, and lymphoma of the stomach wall. It has not proven too helpful in the biopsy diagnosis of gastric ulcers to differentiate benign from malignant ulceration. With this instrument biopsy specimens have not been obtained from the antrum of the stomach. The instrument also is somewhat more unwieldy and more difficult of passage than the ordinary gastroscope. However, with experience this handicap apparently is overcome. There is also available a suction apparatus, devised by Dr. John Tomenius of Sweden, which can be attached to the regular gastroscope and aspiration suction biopsies taken.

Another method of taking biopsy specimens from the stomach is by the use of a suction tube, originally devised by Dr. Ian J. Wood of Australia, with modifications having been made in this country by several workers. It must be understood that this is a blind procedure, inasmuch as the tube is passed into the empty stomach, suction is applied, and a small knuckle of gastric mucosa is sucked up into the instrument where a cutting head obtains the biopsy specimen. I combine this procedure with gastroscopy, usually obtaining the suction biopsy specimen prior to gastroscopy. In approximately 70 per cent of the cases the site of the biopsy can be determined at gastroscopy. This, of course, is helpful when there are found gastroscopic findings of significance in the area of the biopsy.

In a continuing study, by means of serial gastric aspiration biopsies, I have attempted to determine what changes occur in the gastric mucosa as a result of prolonged steroid therapy. The results in over 50 cases at the present time do not show any startling changes in the gastric mucosa before and after months of this type of therapy. Apparently, if ulceration is more frequent with steroid therapy in the stomach and duodenum, it does not occur as a result of gastric mucosal changes that can be readily ascertained.

The most important application of this procedure has been in the study of gastritis, particularly in correlating gastroscopic and histologic findings. This is especially true when one is dealing with diffuse gastritis. The use of this modality of diagnosis has overturned many of our preconceived notions about gastroscopic diagnosis. For instance, the gastroscopic appearance of chronic gastritis is more apt to result in a normal gastric biopsy than otherwise. This has placed additional doubt on the diagnosis of chronic gastritis as a disease entity.

In a few instances blind gastric suction biopsy has been helpful in diagnosis, although it is conceded that this is not the primary purpose of the instrument. Recently, a 72-year-old woman was seen in the hospital because of X-ray findings consistent with generalized cancer of the stomach. An enlarged nodular liver was also present. A suction biopsy was done prior to gastroscopy. The gastroscopic appearance of the stomach was that of a polypoid carcinoma. However, the histologic sections showed a reticulum-cell sarcoma (figure 1). In this elderly woman treatment by means of X-rays was much more expeditious than surgery, particularly in view of the fact that there was a nodular liver, undoubtedly due to extension of the lymphoma.

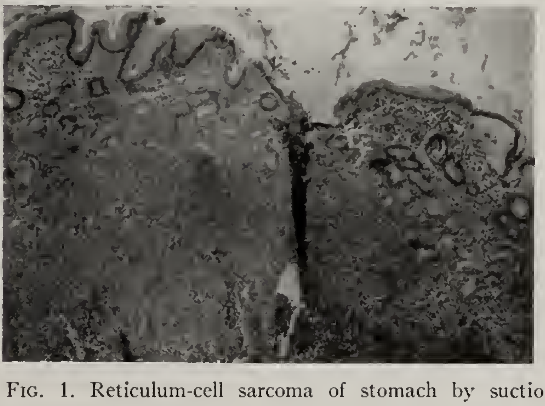

FIG. 1. Reticulum-cell sarcoma of stomach by suction biopsy.

The only hazard of this procedure is intragastric bleeding. I have encountered only 1 case of bleeding of serious proportions, requiring exploration and suturing of the bleeding area in the stomach. In this particular instance, several biopsy specimens had been taken, and the chance of taking multiple specimens is also one of the advantages of the procedure. In summary, then, there are several methods of obtaining biopsy specimens of the stomach which are helpful both in clinical investigation and occasionally in diagnosis.

DUODENUM AND JEJUNUM

Taking advantage of the suction principle, Dr. Margot Shiner of England has devised an instrument, now available commercially in this country, in which a stainless steel tube is passed into the duodenum and into the jejunum. By means of suction a small knuckle of intestinal mucosa is pulled into the cutting head of the instrument and the biopsy is thus obtained. The principle is similar to the use of the gastric suction biopsy instrument discussed above. I have recently started using this instrument and have found in 10 cases that satisfactory multiple specimens can be obtained from the jejunum and duodenum. The passage of the instrument beyond the pylorus may take some time, as much as 4 hours in a few cases, and the location of the instrument must be watched under fluoroscopic observation done periodically.

It is interesting that the histologic changes in idiopathic steatorrhea or nontropical sprue have been debated for some years. Initially it was thought that there were abnormal changes in the form of increased droplet formation in these intestinal cells, but subsequently and for many years it was taught that there were no pathognomonic histologic changes. With the advent of this method of taking biopsy specimens, it has now been found that there are definite abnormal changes in the intestinal mucosa of patients with idiopathic steatorrhea or nontropical sprue in the form of increased goblet cells. Figure 2 shows a biopsy section from a case of nontropical sprue. In a few cases of particularly extensive enteritis the diagnosis has been made by biopsy.

I have been interested in the changes in the small intestine that are seen on X-ray examination in cases of the irritable colon syndrome. X-ray changes of segmentation and flocculation in the small intestine have been recently described by Dr. Henry Bockus and his associates as particularly prominent in cases of the irritable colon syndrome. In several biopsies of the small intestines in such cases, I have found perfectly normal intestinal mucosa. This method of biopsy is of great advantage inasmuch as autopsy specimens of the mucosa of the intestine have been very unsatisfactory because of the rapid autolysis that takes place in this mucosa after death. It seems very likely that a great deal of information will be obtained from this biopsy procedure even though it is a blind procedure.

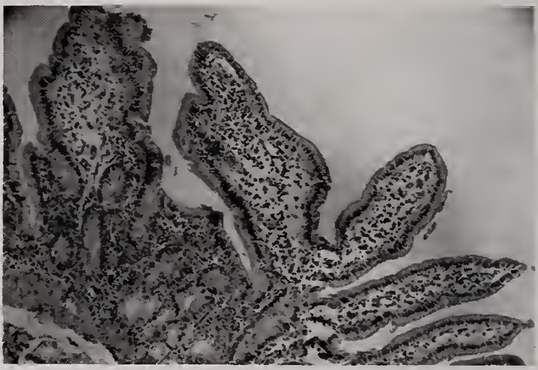

FIG. 2. Nontropical sprue of jejunum by suction biopsy.

RECTUM AND SIGMOID

Sigmoidoscopy is a procedure that has become more widespread among all types of practitioners in the past decade. I believe every practicing physician should be versed in this procedure prior to cessation of his training period. Certainly there is little excuse for interns and residents not becoming fairly adept at this procedure. In addition to its great diagnostic value, even in asymptomatic patients, it also affords a method of direct vision of the distal 25 cm. of the colon where 70 to 75 per cent of all disease of the colon occurs. The finding of polyps in asymptomatic patients is well known to all doctors. In cases of suspected amebiasis and schistosomiasis, even when the mucosa appears normal, a mucosal biopsy may discover the pathogenic agent. Certainly, in every case of ulcerative colitis a biopsy should be done. It goes without saying that biopsy of polyps by this method allows one to determine their nature and to establish future therapy. Biopsy of cancers noted by sigmoidoscopy can also be done prior to surgery. I have encountered a few cases of melanosis coli in which the sigmoidoscopic appearance, while very simple to the experienced eye, is somewhat puzzling to the novice. A biopsy of such mucosa settles the diagnostic problem very simply.

I hesitate to take sigmoidoscopic biopsy specimens on an outpatient basis because there have been accidents relating to excessive bleeding; it is much better to do such biopsy procedures—and this is true of all of these procedures in the intestinal tract—on the hospitalized patient.

Liver

Needle biopsy of the liver has proven to be of great diagnostic and therapeutic significance. In the past 10 years in our clinic we have done over 1,000 needle biopsies of the liver. There have been among this group several accidents in the form of excessive bleeding and bile peritonitis, requiring laparotomy for repair of the complication. However, with the safeguards that have been built up over the years with reference to this procedure, accidents are kept at a very definite minimum. Prior to doing a liver biopsy in any given case a normal prothrombin time, bleeding and clotting time, and platelet count are required. Additionally, the patient is typed and cross-matched, and 1,000 c.c. of blood is made available in the blood bank prior to the procedure. The value of needle biopsy of the liver in both diagnosis and therapy has been proved by a great many workers in this field. Additionally, a great deal of correlative information with reference to liver function tests and histology has been obtained. In many instances unnecessary exploratory surgery has been avoided. This is particularly true in the case of hepatomegaly in which a surprising number of cases of metastatic carcinoma can be diagnosed by needle liver biopsy. It is estimated that close to 70 per cent of all livers with metastatic neoplasm can be diagnosed by biopsy. Serial liver biopsies have contributed a great deal of knowledge, particularly in the understanding of chronic hepatitis and its evolution into various forms of cirrhosis. Recently, needle liver biopsy has been very helpful in elucidating the mechanism of drug reactions in the liver, especially with such drugs as chlorpromazine and methyltestosterone. Additionally, in certain forms of hepatitis some of the cases may simulate extrahepatic obstruction, and a biopsy can readily differentiate this entity and prevent an operation which could be calamitous.

Spleen

Splenic biopsy in America has not been very widely used. I have had limited experience with this form of biopsy, using it only in cases of excessively large and hard spleens. The hematologists have found splenic aspiration with a 20-gauge needle and smearing of the aspirate as helpful, if not more so, than needle biopsy of the spleen. In a few instances of splenomegaly, however, when the diagnoses have not become readily available by other methods, a splenic biopsy has been helpful. In tropical countries splenic biopsy has been used widely in the diagnosis of various parasitic diseases. However, it has a very limited application in average practice in this country.

Peritoneoscopy

Biopsy specimens obtained by means of peritoneoscopy, especially of the liver, have been used for some years in a very limited number of centers in this country. With the advent of the technic of needle liver biopsy many people interested in liver disease gave up peritoneoscopy. This was my own personal experience inasmuch as I was primarily interested in doing peritone-

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HYPERTROPHIC OSTEOARTHROPATHY*

Report of a Case Associated with Lymphosarcoma

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THE PROBLEM of hypertrophic osteoarthropathy was first referred to by Hippocrates in his description of the development of clubbed fingers in a case of chronic empyema. Further reference to this finding was not made until Bamberger in 1889 and Marie in 1890 described the association of clubbed fingers and osteitis of the long bones in patients with pulmonary disease or congenital heart disease. Since that time 3 apparently distinct types of hypertrophic osteoarthropathy have been delineated: (1) the hereditary form,[1] which is transmitted in a mendelian dominant manner and is a stationary condition existing from birth with the main findings of clubbing of the fingers and limited periosteal proliferation at the distal ends of the long bones; (2) the chronic idiopathic variety,[2, 3] which makes its appearance at the time of puberty, has a familial tendency, occurs predominantly in males, is slowly progressive, and frequently results in marked disability or deformity; and (3) hypertrophic osteoarthropathy as part of a syndrome occurring secondary to some other systemic disease (table 1). Approximately 75 per cent of these cases occur in conjunction with some form of pulmonary disease, usually bronchogenic carcinoma, pleural tumors, or suppurative disease of the lung. Less frequently such malignant lesions as carcinoma of the thymus,[4] rhabdomyosarcoma of the heart,[5] Hodgkin's disease,[6] and leukemia[6] have been reported with the clinical manifestations of this syndrome. To our knowledge lymphosarcoma has hitherto not been reported in association with hypertrophic osteoarthropathy. It is for this reason that we believe the following case to be of interest.

TABLE 1

Diseases Associated with Hypertrophic Osteoarthropathy

Carcinoma of the nasopharynx
Syringomyelia
Ulcerative colitis
Chronic amebic dysentery
Intestinal tuberculosis
Carcinoma of the thymus
Rhabdomyosarcoma of the heart
Carcinoma of the lung
Pulmonary fibrosis
Bronchiectasis
Empyema
Bacterial endocarditis
Myelogenous leukemia
Post-thyroidectomy myxedema
Sprue syndrome
Chronic bacillary dysentery
Regional enteritis
Hodgkin's disease
Cyanotic congenital heart disease
Lung abscess
Tumors of the pleura
Pulmonary tuberculosis
Lung cysts
Chronic liver disease

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REPORT OF CASE

A 57-year-old Negro was admitted to the District of Columbia General Hospital on October 31, 1956 because of pain in the left side of the chest and the left flank of three weeks' duration.

The patient's history dated back to October, 1955, when he first noted the onset of pain in the fingers, wrists, knees, and ankles with "swelling" of the fingers. The pain was severe enough to force him to stop working as a presser in a cleaning establishment. He was admitted to a local hospital with these complaints, treated for "arthritis" with aspirin, and discharged somewhat improved. In December, 1955, because of cough, fever, and left thoracic pain he was readmitted to the hospital and treated for "pneumonia" with a course of antibiotics.

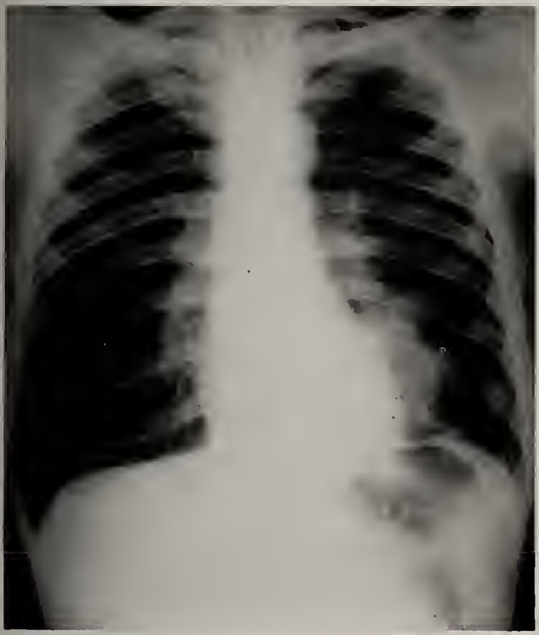

FIG. 1. Hilar fullness and infiltrate in left lower lobe, January, 1956.

In January, 1956 he was again hospitalized at a local hospital because of an exacerbation of the pains in the fingers, wrists, knees and ankles. On this admission, because of generalized lymphadenopathy noted at the time of examination, an epitrochlear lymph node was removed for biopsy and was reported as "nonspecific inflammatory changes." Due to prominent hilar nodes and an infiltration in the left lower lung fields noted on X-ray examination (figure 1), a right scalene lymph node biopsy was obtained and reported as lymphosarcoma, lymphocytic type.

The patient was given a course of X-ray therapy to the hilar area through 2 ports. X-ray films of the long bones at this time revealed typical changes of hypertrophic osteoarthropathy (figure 2). The patient was discharged in April, 1956 and apparently did well until October, 1956, when he developed left thoracic pain, a productive cough with 2 episodes of hemoptysis and pain in the left flank, which was constant and aggravated by motion. Because of these symptoms he was admitted to the District of Columbia General Hospital.

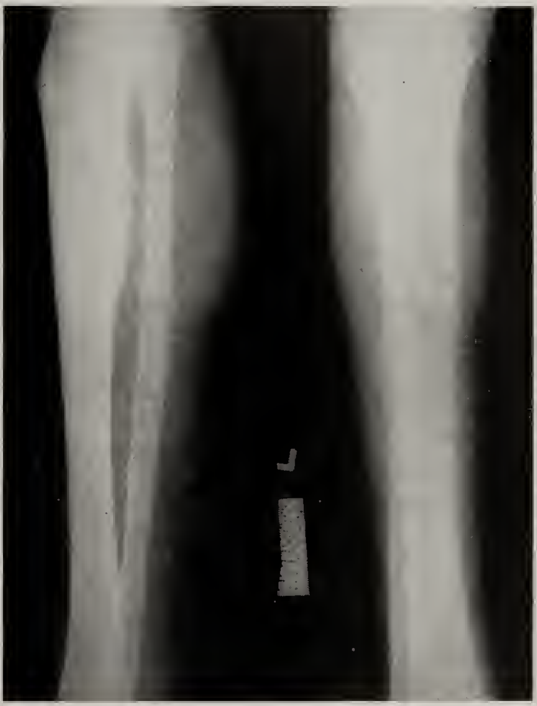

FIG. 2. Periosteal changes consistent with hypertrophic osteoarthropathy, January, 1956.

The past history and the family history were negative.

On physical examination the patient appeared as an alert, reticent man in some distress, with evidence of recent weight loss. The blood pressure was 100/60, the pulse rate 110, the respiratory rate 20, and the temperature 101°F rectally. There was no abnormality of the facial features. The skin was dry, with areas of increased pigmentation in the region of the sternum and the midthoracic spine. There were several 2 by 3 cm., movable, firm, non-tender lymph nodes in the cervical, axillary, and inguinal areas. The eyes, ears, nose and throat were normal. The heart was enlarged, and there were no murmurs or abnormal sounds. The rhythm was regular and the rate 110. The breath sounds were diminished, and scattered crepitant rales were present over the left lower lung fields posteriorly. The liver was palpated 4 cm. below the right costal margin in the mid-clavicular line and was firm and non-tender. The spleen was not palpable. There was tenderness and guarding over the left flank region. The breasts, testes, and prostate were within normal limits. There was marked clubbing of the fingers and toes, and tenderness to firm palpation was present over the entire right leg and over both forearms, wrists and fingers.

A roentgenogram of the chest showed prominence of both hilar areas with infiltration in the left lower lung fields. X-ray films of the long bones once again revealed subperiosteal osteitis. An intravenous pyelogram was negative.

Examination of the blood showed a hematocrit of 35.5 per cent, a hemoglobin of 12.2 Gm., and a white blood cell count of 3,900 with 67 per cent neutrophils, 24 per cent lymphocytes, 8 per cent monocytes, and 1 per cent basophils. The reticulocytes were 1.3 per cent. The platelets were normal. A serologic test for syphilis was negative. A urinalysis was within normal limits. A sputum culture was negative for pathogenic bacteria and for acid-fast organisms. The blood urea nitrogen was 16 mg. and the serum phosphorus was 3.2 mg. per 100 ml. of blood. The bromsulphalein retention after 45 minutes was 12 per cent, the thymol turbidity was 1 unit, and the cephalin flocculation was 3 plus after 24 and 48 hours respectively.

The patient ran a progressively downward course marked by a persistent low-grade fever, continuous weight loss (from an initial 126 pounds to a terminal 103 pounds), and severe pain in the extremities only occasionally relieved by narcotics.

Since he had received what was considered to be the maximum tolerated dose of radiation, and due to the widespread distribution of his disease, the patient was given a course of nitrogen mustard (a total dose of 0.4 mg. per Kg. of body weight in 2 divided doses) without any noted beneficial effects. He died on December 26, 1956.

DISCUSSION

Hypertrophic osteoarthropathy is manifested clinically, as in the case just reported, by pain in the bones, arthralgia, thickening of the wrists and ankles, and enlargement of the hands and feet. Radiographically a subperiosteal osteitis occurs most prominently at the epiphysis of long bones and at the sites of the insertion of tendons, but usually not extending to involve the areas covered by the articular capsule.[5, 6] The bones most frequently involved are the tibia, fibula, radius, ulnar, femur and humerus. In advanced cases the ribs, clavicles, scapulas, and spine may be involved. The skull and mandible are never involved.

The amount of disability and the acuteness of the symptoms associated with the onset of the changes in the bones occurring in hypertrophic osteoarthropathy bear some relation to the malignancy of the underlying disease. Ray and Fisher[7] reported in their series that pain was a prominent symptom in patients who had associated carcinoma, whereas the hypertrophic osteoarthropathy occurring in their patients with chronic pulmonary suppuration and cyanotic congenital heart disease was asymptomatic. This association has also been noted by others.[8, 9]

Another physical finding not consistently present, but at times accompanying the bony changes, is gynecomastia. This was present in 50 per cent of the cases reported by Hammarsten and O'Leary.[6] Berk[3] has also reported an acromegalic appearance of the face with prominence of the jaw, which is found most commonly in the cases of the idiopathic type of hypertrophic osteoarthropathy. The association of clubbing of the fingers with hypertrophic osteoarthropathy is very high but was absent in 1 case reported by Hammarsten et al.[6] The clubbing of the fingers seen in many cases of cyanotic congenital heart disease is usually present without the attendant X-ray findings of hypertrophic osteoarthropathy and has been shown to be due to a change in the volume of blood present without any change in the amount of fibrous tissue present.

In the case reported the hypertrophic osteoarthropathy was erroneously diagnosed as rheumatoid arthritis. This is not an uncommon occurrence, and the error is occasionally abetted by the symptomatic response of the bone pain to the use of adrenal steroids frequently administered to such cases. Other conditions sometimes confused with hypertrophic osteoarthropathy are nonspecific periostitis, acromegaly, Paget's disease, and, in the era when it was more common, syphilitic periostitis. The points of difference in the radiologic appearance of the bones in this differential list have been commented on by Camp and Scanlan.[2] The importance of recognizing secondary hypertrophic osteoarthropathy has been emphasized many times. The arthritic symptoms, as the first manifestation of the presence of malignant disease, have been recorded as appearing as early as 57 months before the primary problem became apparent.[6]

Theories as to the etiology of hypertrophic osteoarthropathy are numerous and have been extensively discussed elsewhere.[1-4, 6, 8, 10-16] It appears that neither pulmonary infection nor suppuration are essential factors. Indeed, though in a large number of instances (75 per cent in the series of Locke[10] and in the case reported here) there is an associated pulmonary component to the underlying disease, 25 per cent of the cases reported by Locke with secondary hypertrophic osteoarthropathy had no lung involvement. The relationship between the 3 per cent to 5 per cent of the cases of hypertrophic osteoarthropathy that are idiopathic and the larger number that occur secondary to other systemic diseases is still obscure, and the etiology of both remains in the hypothetical realm.

SUMMARY

A case of hypertrophic osteoarthropathy in association with lymphosarcoma is reported. The interrelation of the occurrence of this syndrome with pulmonary disease, heart disease, and diseases outside the thoracic cage is noted.

The three types of osteoarthropathy (hereditary, idiopathic and secondary) are described. The interrelationships are obscure, and the etiology of this process is still hypothetical.

BIBLIOGRAPHY

1. Witherspoon, J. T.: Arch. Int. Med., 1936, **57**, 18.
2. Camp, J. D., and Scanlan, R. L.: Radiology, 1948, **50**, 581.
3. Berk, M.: New England J. Med., 1952, **247**, 123.
4. Shapiro, M.: A.M.A. Arch. Int. Med., 1956, **98**, 700.
5. Temple, H. L., and Jaspin, C.: Am. J. Roentgenol., 1948, **60**, 232.
6. Hammarsten, J. F., and O'Leary, J.: A.M.A. Arch. Int. Med., 1957, **99**, 431.
7. Ray, E. S., and Fisher, H. P., Jr.: Ann. Int. Med., 1953, **38**, 239.
8. Fischl, J. R.: Am. J. Roentgenol., 1950, **64**, 42.
9. Semple, T., and McCluskie, R. A.: Brit. M. J., 1955, **1**, 754.
10. Locke, E. A.: Arch. Int. Med., 1915, **15**, 659.
11. Lowell, R. R. H.: Clin. Sc., 1950, **9**, 299.
12. Skall-Jensen, J.: Acta radiol., 1952, **38**, 382.
13. Means, M. G., and Brown, N. W.: Am. Heart J., 1947, **34**, 262.
14. Flavell, G.: Lancet, 1956, **1**, 260.
15. Schlicke, C. P., and Bargen, J. A.: Am. J. Digest. Dis., 1940, **7**, 17.
16. Pascuzzi, C. A., Parkin, T. W., Bruwer, A. J., and Edwards, J. E.: Proc. Staff Meet. Mayo Clin., 1957, **32**, 30.

President's Page

MALPRACTICE CLAIMS AND THE PATIENT

Last month I brought to your attention some influences that malpractice claims are having on surgery. Although only a limited number of procedures are affected, surgeons are undoubtedly devoting more time to discussion with the patient and his family of probable risks and possible complications.

More important than the effect on doctors may be the result of such suits on patients themselves. I asked the same group of colleagues this question: In your opinion, do malpractice claims work to the ultimate good or harm of the patient?

A majority answered that harmful effects outweigh the good, but volunteered that some benefit will probably be derived from seeing ourselves as others see us, and having our attention called to errors or incidents that lead to complaints. They stated that this, in turn, will lead us to study the malpractice situation as we study other medical problems. We will analyze our shortcomings, attempt to remedy them, and this will result in benefit to our patients.

The detrimental effects are summed up in a single sentence by Louis J. Regan in his book, "The Doctor and Patient and the Law": "There can be no question but what the destructively critical attitude of an ever increasing number of people and the rising incidence of malpractice claims consequent thereon, puts a diefinite brake on medical progress, and seriously burdens and injures the individual physician-patient relationship."

If this appears intangble, let me give you a few illustrations: A general surgeon was consulted by a man who had been operated on twice before for inguinal hernia, and alleged that he had developed testicular atrophy as a result of one of the operations. On learning that a claim had been made against the doctor who had done a previous operation, the surgeon emphasized the recurrence rate of such hernias and declined to do another operation. A neurosurgeon was unwilling to treat a severe causalgia which followed intravenous injection in the antecubital space close to the median nerve. The patient's personality and attitude toward the doctor who made the intravenous injection led him to believe a suit was already in the offing. She was so demanding that he felt anything less than a perfect result from sympathectomy would involve him along with the physician. Some surgeons declared that the personality of the patient and other circumstances receive more consideration in their decision to operate. In discussion with the family, their attitude and questions may lead the doctor to believe that anything short of complete relief will bring about disappointment and criticism.

A frequent comment was that malpractice claims tend to retard medical progress and one man expressed it this way:

"Young surgeons will feel compelled to stick to standard operations. They will be afraid to try new procedures. Just think what we would be doing now if we had stuck to the standard operations of thirty years ago!"

Anesthesiologists are reluctant to employ spinal anesthesia even when it has obvious advantages. Since the doctrine of *res ipsa loquitur* has been applied by some courts to the neurologic complications, the risk is too great.

Is there not a danger that malpractice claims may create an atmosphere that influences the doctor's judgment as to what is best for the patient?

James W. Watts

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Editorials

A CHALLENGE

The medical profession of this country has been bombarded with statements regarding the decline and eventual death of the solo practice of medicine. It has been told that failure to comply with the requirements laid down by certain organized groups will result in these groups hiring, on salary, their own physicians and setting up their own form of medical care under the title of a clinic, a panel, a coöperative, or some other name. In turn, certain physicians have organized into groups and solicited the patronage of the "consumer" groups through either flat rate or reduced rate coverage. Any attempt to settle the problem in this manner will result in care which is not always of the best, which disrupts the patient-physician relationship, and which does not answer the need for medical care on a sound financial basis to the bulk of the patients who, after all, should be the primary concern of their leaders and physicians alike.

It is perfectly obvious to anyone that the

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

overall cost of medical care has risen rapidly. It is also clear from statistics of the United States Department of Labor[1] that, while hospital room rates rose 264.8 per cent between 1936 and 1956, the average physician's fee increases in the same period amounted to only 66.2 per cent. The widespread and rapid increase in hospitalization insurance has been furthered by the rapid rise in hospital costs. Likewise the growth of voluntary prepayment insurance, as exemplified by the Blue Cross plans, has been "triggered" by these facts.

However, it is clear that the demand for prepayment coverage for physicians' fees is a widespread and serious request. A recent public opinion survey conducted by the Michigan State Medical Society confirmed this trend. It showed also that those who desire greater coverage recognized that such services would require a higher premium and indicated a willingness to pay the additional premium. Discussions held with leaders of so-called "consumer" groups confirmed the above facts on a local level.

It is and always has been true that a patient recovers more quickly and fully when there exists an identification of interest with the physician. The cornerstone of satisfaction remains the personal patient-physician relationship with freedom of choice of physician. This choice is bilateral—the right of a patient to select or change his doctor and the right of the physician to accept or reject any patient or his family. The preservation of this principle should be uppermost in planning any program of prepayment medicine.

What, then, is the answer to this demand for more comprehensive coverage and the preservation of the freedom of choice of physician without subjecting the physician or the patient to a Government system of medicine? It becomes clear that a plan must be developed whereby the patient may budget his total medical care, paying a known premium rate per month, while the physician must accept a stated fee for the services rendered. This plan is possible and is a necessity to answer the problem facing the "consumer" and the physician. It is obviously necessary to handle such a plan through a functioning organization, such as Blue Shield, which has the basic structure in operation and need only expand its present contracts and operations to attain the desired ends. Steps have been taken toward this end, and it is hoped that the results will soon be forthcoming.

In essence it is hoped that a plan will soon be available by which practically complete coverage of a patient will be possible with stated adequate fees to the physicians and at a known budgeted cost to the patient. This, then, is the challenge to the physicians of the United States and this is the means by which the medical profession must take the aggressive lead in solving this problem.

C. Willard Camalier, Jr., M.D.
Chairman, Committee on Medical Care

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[1] Medical Care in the Consumer Price Index 1936–56: Monthly Labor Review, September, 1957.

MEDICAL LEADERSHIP IN REHABILITATION

The restoration of a disabled individual to the maximum physical, mental, social, and economic usefulness of which he is capable is the goal of rehabilitation. Rehabilitation is an investment in human values. While its investment is often measured in dollars, its real dividend is to society in the restoration of the self-respect, dignity, and worth of the individual.

While society has a basic responsibility for the rehabilitation of the handicapped, the physician has the key role in the process. From a growing recognition of this role on the part of local medical groups came the impetus which resulted in the formation of the Council on Rehabilitation of the Medical Society of the District of Columbia and the Metropolitan Medical Societies of Maryland and Virginia in 1955.

As has been reported in prior issues of MEDICAL ANNALS, the Medical Society of the District of Columbia was awarded funds from the Office of Vocational Rehabilitation, Department of Health, Education, and Welfare, for the Council on Rehabilitation to study existing rehabilitation facilities of the Washington Metropolitan Area, and to assess present and future needs. Equally important was the opportunity for this project to demonstrate the leadership of the medical profession in community planning for rehabilitation.

In undertaking such a demonstration the Council on Rehabilitation was a pioneer among medical societies in the United States. In fact, shortly after its formation in 1955 it was responsible for a formal resolution submitted to the House of Delegates of the American Medical Association requesting that the Association "establish an integrated consultation service to State Societies and outline a policy of procedure for the guidance of local professional groups in dealing with the total program of rehabilitation." The resolution was approved by the House of Delegates and steps were taken to implement it.

In 1957, the AMA established a Committee on Rehabilitation with the following distinguished membership: Dr. Frank H. Krusen, Head of Physical Medicine and Rehabilitation, Mayo Clinic, Rochester, Minnesota; Dr. Guy A. Caldwell, Professor of Orthopedics, Tulane University School of Medicine, New Orleans, Louisiana; Dr. Henry B. Mulholland, Assistant Dean and Professor of Internal Medicine, University of Virginia School of Medicine, Charlottesville, Virginia; Dr. Oscar A. Sander, Assistant Clinical Professor of Occupational and Environmental Medicine, Marquette University School of Medicine, Milwaukee, Wisconsin; and Dr. Francis J. Gerty, Professor of Psychiatry, University of Illinois College of Medicine, Chicago, Illinois.

The objectives of the AMA Committee on Rehabilitation are:

1. To coördinate the rehabilitation interests and activities within the councils, bureaus, committees, and departments of the American Medical Association;
2. To foster medical supervision of rehabilitation services and centers;
3. To study the problems and interrelationships of the medical, social, educational, and vocational aspects of rehabilitation;
4. To inform the medical profession of the availability of information regarding rehabilitation;
5. To collect information concerning the establishment of rehabilitation programs, their organization, methods of operation, and utilization by physician and patient;
6. To encourage medical society interest and programs in rehabilitation.

The Committee contemplates activities such as the gathering of data on rehabilitation programs of national organizations; the preparation of guides for use of medical societies in pursuing local activities, as well as guides for sound rehabilitation services and facilities; and the publication of a series of articles in the *Journal of the AMA* on all aspects of rehabilitation.

When the AMA Committee on Rehabilitation met in Washington last fall, the Council on Rehabilitation was invited to present its purpose and program. Real interest was expressed in the approach taken by the Council and its potential value to other medical societies and communities. Recently, in order to acquaint itself with local activities, the AMA Committee polled all of the Association's constituent societies to ascertain whether they had a committee dealing with rehabilitation.

Aside from the AMA, national interest in the organization and program of the Council on Rehabilitation has been expressed by a wide variety of community agencies in all parts of the country. Such inquiries are stimulated by the fact that the project is sponsored by the medical profession.

The identification of community needs in rehabilitation will be an important step toward the development of a sound program for the handicapped in the Washington Metropolitan Area. Equally important will be the realization on the part of the private practitioner that medical care and rehabilitation are synonymous, and that a program of treatment for the patient should encompass all the services necessary to ensure his return to the community with maximum self-sufficiency.

JOSEPHINE J. ALBRECHT
Executive Secretary, Council on Rehabilitation

SHOULD A PATIENT BE TOLD THAT HE IS ABOUT TO DIE?

There appear to be two schools of thought concerning this question. One believes that the patient has a right to know in order to arrange his affairs and make other preparations for death. The other school, with which I agree, holds that judgment is often fallacious and that it is cruel to withdraw hope from the patient, who may then die in fear and despair. A shipwrecked sailor, cast upon an angry sea with no succor in sight, fights for his life and retains his hope of rescue so long as his life preserver sustains his weight in the water. Occasionally his confidence is rewarded and he is rescued. If help does not arrive, he continues his fight for life until exhaustion and thirst cloud his intellect and he relapses into unawareness of his environment. He dies with hope in his heart that help will soon arrive. Take his life preserver away and panic ensues, and he drowns in fear and despair. His suffering may not be prolonged, but it is acute and awful.

The doctor is the patient's life preserver, and his value to the patient is the confidence he creates and the sense of security he gives the patient under his care. The relationship is like that of a small child with his parents. He feels that nothing bad can happen to him if his parents are there to guard him. Who is afraid of the dark if the parents are within call? Death may not be so close as it may appear to the doctor, and it may not proximately ensue if the patient is encouraged to keep up the fight. No baseball game is lost before the conclusion of the ninth inning.

I recall attending a patient years ago who had a pyogenic infection of the peritoneum following childbirth. Antibiotics had not made their appearance. Laparotomy and drainage were followed in 72 hours by adhesive intestinal obstruction. In spite of exhaustion and lowered resistance, consequent to the infection, it was necessary to reopen the abdomen and search for the location of the obstruction. Fortunately this was discovered and the adherent loop of intestine freed. Notwithstanding careful postoperative care, the trend in the patient's condition was progressively downward. Forty-eight hours after the second operation the patient presented the symptoms of impending death. She was unconscious, the blood pressure low, the pulse uncountable, the temperature subnormal, the pupils fixed, the skin pale and clammy, and the respirations rapid and superficial. After ordering continued treatment I stopped at the office of the hospital and signed a death certificate, which is required before a corpse can be moved from one place to another. I did this to avoid a call from the mortician at my home during the night. On the next day I made my rounds at the hospital and witnessed the nearest thing to a miracle that I had seen. My patient was conscious and definitely improved. The improvement continued, and she left the hospital 2 weeks later on her own feet. Recently she called at my office with the daughter whose birth was followed by the infection, and the daughter carried her own 3-month-old baby. This case taught me a lesson. I use the words "possibly" and "probably" more frequently than previously, and I often recall the words of the naval hero who died with the words "Don't give up the ship" on his lips.

During the days of prohibition there was a gun fight in an alley between the police and 3 bootleggers. A policeman was killed, and one of the bootleggers was shot in the abdomen. The injured boy, who was 18 years old, was taken to a hospital where I was attending staff surgeon. At operation it was discovered that the bullet had passed through the large intestine and a loop of the small intestine. A mesenteric artery was also punctured, and great quantities of blood had escaped into the abdomen. The holes in the intestines were repaired and the mesenteric artery was ligated. The postoperative 3 days were stormy. The patient's consciousness was retained, and medication controlled the pain. He died on the fourth day. The District Attorney requested that I obtain an antemortem statement and that I should tell the boy that he was about to die. (It seems that such a statement cannot be used in court unless the patient knows he cannot continue to live.) I declined to coöperate because it seemed heartless to deprive the trusting boy of a "life preserver" although there was no help in sight. This incident ended a cordial relationship between the District Attorney's office and me.

Of course, when a patient voluntarily expresses the belief that he is about to die, full coöperation should be extended by the doctor to secure an antemortem statement.

At one time I had medical supervision of the D. C. jail, and during those 14 years I was official witness to 7 executions. The rope and the electric chair are both quick and I believe painless. The punishment for a capital crime is anticipation. Counting the weeks and the days and the hours and the minutes is the coin by which society is paid for such law infraction. The doctor who advises his hopeless patient that his days are limited subjects him to much the same suffering. There is a merciful curtain which obstructs our view of the future. Anyone who parts it is guilty of disservice to the viewer.

JAMES A. GANNON, M.D.

In and Out of Focus

BY THE OBSERVER

Thousand Greet Forum

Several months ago a representative of the Wm. S. Merrell Company, Mr. Harold Mantell, called the Society's Executive Offices. In the course of a conversation with the Secretary he inquired if the Society would be interested in sponsoring an all-day meeting on medical economics for physicians in the District and nearby states, the meeting to be a joint venture of the Society and his company. The Secretary said that, while he was strongly in favor of the proposal, he would have to discuss the matter with the Executive Board, which he did at its next meeting. He suggested to the Board that this was a program which might well be sponsored by the recently established Medical Council of the Washington Metropolitan Area.*

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* The Council consists of representatives of The Montgomery County (Md.) Medical Society, The Prince Georges County (Md.) Medical Society, The Alexandria City (Va.) Medical Society, The Arlington County (Va.) Medical Society, The Fairfax County (Va.) Medical Society, and The Medical Society of the District of Columbia.

The Board agreed, and the matter was brought before the Council at a subsequent meeting. The Council was enthusiastic and voted unanimously in favor of the proposal. The Merrell Company was notified of its action.

There followed weeks of discussion as to the type of program that should be presented, in which several members of the Council participated. Mr. Mantell, whose enthusiasm was unquenchable, "cleared" speakers and subjects with the Secretary, it being understood that the primary object was to obtain the best talent in the country to speak on subjects of the widest possible interest. Those who were in attendance at the meeting, your Observer feels certain, will agree that this objective was realized. Few programs presented to physicians in Washington have evoked so much favorable comment.

When the program had been completed, the question arose as to the probable attendance. It was estimated by the Secretary that it would be somewhere in the neighborhood of 500. Mr. Mantell and Dr. John B. Chewning, Medical Director of the Merrell Company, were certain that it would attract twice that number; otherwise, they said they would agree to holding the meeting in the Medical Society's auditorium. It was finally decided to use the Presidential Ballroom and the Congressional Room at the Statler, where the sessions were finally held.

As it turned out, the attendance reached close to 1,000, including a comparatively small group of wives and secretaries. Physicians came from all nearby states—Virginia, North and South Carolina, West Virginia, and Pennsylvania.

For the benefit of those who did not attend the Forum, the following program was presented:

THE DOCTOR AND THE LAW

a. Protecting Yourself Against Professional Liability Suits:
  C. Joseph Stetler, Director, Law Department, American Medical Association, Chicago, Ill.
  R. Crawford Morris, practicing attorney, Cleveland, Ohio
b. Planning Your Tax Program:
  Bernard D. Hirsh, Tax Accountant, American Medical Association, Chicago, Ill.
  Robert B. Murphy, Legal Counsel, State Medical Society of Wisconsin

THE DOCTOR AND HIS OFFICE

a. Improving Your Business Management:
  George W. Condit, Medical Management Consultant, New York City
b. Improving Your Human Relationships:
  Ernest Dichter, Ph.D., Director of the Institute for Motivational Research, New York City

THE DOCTOR AND HIS LIFE PLANNING

a. Selecting Your Investments:
  Carl Holzheimer, Investment Consultant, American Medical Association and a principal partner, Security Supervisors, Chicago, Ill.
b. Choosing Your Insurance:
  James A. Eubanks, Superintendent of Agencies, Metropolitan Life Insurance Company, New York City
c. Planning Your Estate:
  Amiel Caplan, Estate Planning Consultant, Solomon Huber Associates, New York City

The splendid talk given at the luncheon by Dr. Howard A. Rusk, Director of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, and Associate Editor, *The New York Times*, entitled "Stress in the World, the Individual and the Doctor," appears in this issue of the MEDICAL ANNALS. Other "papers" will be published in the ANNALS in the next few months. The talks are well worth preserving because of their practical nature and the helpful suggestions which they contain.

As announced in a program sent several thousand physicians, the Forum was the first all-day meeting held in Washington devoted to medical economics. If calls and letters received from various medical societies are an indication, similar meetings will be scheduled elsewhere. As for repetition of the Forum in Washington, the Council has not yet considered its advisability. The response to the first venture suggests that it would be most successful. Perhaps the Merrell Company might again wish to

PARTICIPANTS IN THE MEDICAL ECONOMICS FORUM

(1) Dr. Howard A. Rusk, Associate Editor of *The New York Times*, addressing the Luncheon Session in the Presidential Ballroom of the Hotel Statler, March 27. (2) Seated at the speakers' table (left to right) are Dr. Rusk; Dr. H. Haskins Ferrell, President of the Medical Council of the Washington Metropolitan Area; Dr. James W. Watts, President of the District Medical Society; and Nelson Gampfer, Chairman of the Board of Directors, The Wm. S. Merrell Company, which co-sponsored the Forum with the Medical Council.

(3) Another group at the speakers' table: C. Joseph Stetler and Bernard D. Hirsch, of the American Medical Association; Theodore Wiprud, Secretary of the Council; Dr. Ferrell; Robert B. Murphy, legal counsel from Wisconsin, addressing the audience; R. Crawford Morris, Cleveland attorney; and George W. Condit, of New York City. (4) The sustained interest in the Forum is evident in this group picture. (5) Dr. Ferrell at the microphone.

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participate in view of the overwhelming success of the first venture.

Obviously, the Forum would not have been possible except for the generosity of the Merrell Company, which not only underwrote the expenses of the program but a delightful luncheon and reception. To them, the Council and the physicians and others in attendance are deeply indebted.

Medical Bureau's Loss

When MEDICAL BUREAU was organized in December, 1940, the Society was fortunate in obtaining the services of Mrs. Elizabeth M. Lenderman as the evening operator on the so-called "five to midnight shift." There were only 4 operators (1 relief) at that time, carrying on the 24-hour service, because the BUREAU had only 100 subscribing physicians. Mrs. Lenderman was then, as she is now, a mainstay of the BUREAU. Her working hours made it virtually impossible for her to have a normal social life; yet she never complained.

In the early days, when she was alone during the peak-load hours, she demonstrated exceptional efficiency, handling calls with speed and accuracy. Your Observer cannot remember that she was ever flustered no matter how fast the calls poured in.

During World War II the BUREAU experienced its most difficult period. It was nearly impossible to employ competent operators. Adding to the BUREAU's problems was the fact that some 300 Washington physicians had left their practices for the armed forces. Patients having no physicians had to rely on the BUREAU as virtually the only source of medical referral to private physicians. The BUREAU can take pride in its war-time record, for there were few who requested assistance whose needs were not met. No one played a more important part in this than Mrs. Lenderman. Night after night, holidays, and Sundays, except when a relief operator was on duty, she was at her post. If an operator was unable to function she was always available to lend a helping hand.

As the BUREAU grew—it now has some 750 subscribers—Mrs. Lenderman continued on the evening shift as chief operator, a position which she still holds. During the period of her employment she has trained many operators, some now serving both physicians and the public exceedingly well.

On May 1, 1958, Mrs. Lenderman retired after nearly 18 years of service. Her rather delicate health would not permit her to continue. She is still the handsome and personable woman she has always been. Her crisp but friendly manner has always been her trademark.

MRS. ELIZABETH M. LENDERMAN

Retiring Chief Operator of Medical Bureau

Naturally, she has had many experiences in handling emergencies. Literally hundreds of people have been the beneficiaries of her efficiency and resourcefulness. She instinctively understood the true nature of the calls which she took and handled them accordingly, which meant with dispatch and intelligence.

Mrs. Lenderman is known to hundreds of doctors who recognize her deep voice but do not know her name. They have frequently spoken of her in the highest terms. Needless to say, their best wishes for well deserved years of good health and contentment go with her. It can truly be said of her that she has not only served well but beyond the call of duty.

Buy or Rent?

Apparently there are a number of Washington physicians who are convinced it is less costly to rent an automobile for professional purposes than to buy one. Inquiry revealed that 1 District agency alone is at the present renting 20 cars to local physicians. This aroused your Observer's curiosity as to the advantages and disadvantages of renting or buying and how prevalent this arrangement is.

Ciba's *Medical News* for March 10, 1958, carried an enlightening article on the subject. It reported that "One auto-rental concern in metropolitan New York, which has 300 of its 400 cars in the hands of MD-clients, operates this way:

"Any make of car can be rented. A physician signs a contract for a brand-new car to be leased over a 2-year period. The firm secures and pays for the MD-license plates. It buys insurance protecting the doctor—$100,000–$300,000 liability, $10,000 property damage, and comprehensive nondeductible collision—and pays all other charges for the life of the lease. All, that is, except gasoline.

"Service, repairs, anti-freeze, oil and lubrication—even Simonizing twice a year—are all paid for by the lessor.

"The rental fee varies with the kind of car the doctor wants, of course. For an Olds 98, for example, the monthly charge is about $160, or $1,920 a year."

With respect to purchase of an automobile, the *News* states that the list price in the New York area for a hard-top convertible is about $4,900, but that a physician probably would be able to buy it for $4,000. If it is assumed that he did, his other expenses during the year would run as follows:

"Depreciation	$1,100
Insurance	200
License plates	25
Lubrication (every 1,000 miles)	40
Tune-ups	25
Oil change, anti-freeze, etc.	20
Waxing and polishing (twice a year)	40
Tire depreciation (10,000 miles)	100
Battery depreciation	10
Towing, flats, filters, etc.	50
Interest on $4,000 (purchase price)	120
Incidentals	35
Total expenses	$1,765"

On the basis of these figures, the cost of owning a car would be $155 less than the annual rental for the same make and type of automobile. However, the rental companies call attention to the fact that the sales tax does not apply to a lease as it does to a purchase. In addition, rental is 100 per cent tax-deductible. It also eliminates the need for a large cash outlay and the possibility of getting a car that is "a lemon." At the very most, a physician who rents an automobile will pay $3.00 a week more, but he will be free of the "headaches" which are associated with ownership. Should there be a breakdown or accident, all he has to do is call the firm which owns the automobile, and it will be taken care of immediately.

How do New York doctors feel about the merits of purchase versus rental? The *News* publishes this as a typical reply:

"It probably costs a little more to rent a car, but I don't care. It's a service that saves me time and annoyance. I don't even bother to garage the car. It's not my chromium. The rental agency knows this, and they don't care either. They sell the car after two years, anyway."

On the other hand, a practitioner, who, the *News* states, is not a psychiatrist, says:

"There is a certain loss of ego-satisfaction in not owning one's own car."

★

Medical Disciplinary Board

Washington State's Medical Disciplinary Board Act, which became a law in 1955, has attracted wide attention. It is still "on trial" because only a few cases coming before it have been decided by the courts. Officials charged with implementation of the Act are therefore reluctant to comment on its effectiveness.

Because of its uniqueness and the fact that it may be a forerunner of similar legislation in other jurisdictions, some of the Act's provisions will hold special interest for readers of this column.

The law was enacted, the Act states:

> "1. In the exercise of the police power of the state to protect public health, to promote the welfare of the state, and to provide an adequate public agency to act as a disciplinary body for the members of the medical profession licensed to practice medicine and surgery in this state;
>
> "2. Because the health and well-being of the people of this state are of paramount importance;
>
> "3. Because the conduct of members of the medical profession licensed to practice medicine and surgery in this state plays a vital role in preserving the health and well-being of the people of the state; and
>
> "4. Because the agency which now exists to handle disciplinary proceedings for members of the medical profession licensed to practice medicine and surgery in this state is ineffective and very infrequently employed, and consequently there is no effective means of handling such disciplinary proceedings when they are necessary for the protection of the public health."

The Act provides that implementation of its provisions are entrusted to the Washington State Medical Disciplinary Board composed of "one holder of valid license to practice medicine and surgery from each Congressional district now existing or hereafter created in the state." The Attorney General is the advisor to the Board and represents it in all legal proceedings.

Members of the Board are elected by secret mail ballot by holders of licenses to practice medicine who reside in each Congressional district. Nominations are made by petitions signed by not less than 25 license holders residing in the nominee's district. Petitions must be forwarded to the Board at least 4 weeks before date of election. Vacancies on the Board are filled by the Governor.

Members of the Board are compensated to the extent of $25.00 per diem for the time spent in performing their duties. In addition, they are paid their traveling and other expenses while engaged in the business of the Board.

Most important of all, members of the Board are "immune from suit in any action, civil or criminal, based upon any disciplinary proceedings or other official acts performed in good faith as members of such Board."

The Board's "powers and duties" are described as follows:

> "1. To adopt, amend and rescind such rules and regulations as it deems necessary to carry out the provisions of this act;
>
> "2. To investigate all complaints and charges of unprofessional conduct against any holder of a license and to hold hearings to determine whether such charges are substantiated or unsubstantiated;
>
> "3. To employ necessary stenographic or clerical help.
>
> "4. To issue subpoenas and administer oaths in connection with any investigation, hearing, or disciplinary proceeding held under this act.
>
> "5. To take or cause depositions to be taken as needed in any investigation, hearing, or proceeding."

Complaints against a physician, charging him with unprofessional conduct, may be lodged by "any person, corporation, or public officer." Such conduct is described as follows:

> "1. Conviction in any court of any offense involving moral turpitude, in which case the record of such conviction shall be conclusive evidence;
>
> "2. The procuring, or aiding or abetting in procuring a criminal abortion;
>
> "3. Fraud or deceit in the obtaining of a license to practice medicine;
>
> "4. All advertising of medical business which is intended or has a tendency to deceive the public or impose upon credulous or ignorant persons and so be harmful or injurious to public morals or safety;
>
> "5. All advertising of any medicine or of any means whereby the monthly period of women can be regulated or the menses reëstablished if suppressed;
>
> "6. The impersonation of another licensed practitioner;
>
> "7. Habitual intemperance;
>
> "8. The use or prescription for use of narcotic drugs in any way other than for therapeutic purposes;
>
> "9. The offering, undertaking or agreeing to cure or treat disease by a secret method, procedure, treatment, or medicine, or the treating, operating, or prescribing for

any human condition by a method, means, or procedure which the licensee refuses to divulge upon demand of the Board;

"10. The wilful betrayal of a professional secret;

"11. Repeated acts of immorality, or repeated acts of gross misconduct in the practice of the profession;

"12. Unprofessional conduct as defined in chapter 19.68 RCW*;

"13. Aiding or abetting an unlicensed person to practice medicine; or

"14. Declaration of mental incompetency by a court of competent jurisdiction."

By majority vote the Board may find a physician guilty of the complaint lodged against him and order the revocation or suspension of his license. On the other hand, it may find him not guilty, or a majority may fail to find him guilty, in which event the complaint against him is dismissed. If found guilty he has the right to judicial review by the courts.

These in essence are the basic provisions of the Act, the effectiveness of which remains to be demonstrated. A recent decision by the state's Supreme Court, upholding a Board action, has given that body considerable encouragement.

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Committee's Duties Defined

There seems to be some confusion among members of the Society as to the functions of the Grievance Committee as they relate to those of the Committee on Medical Ethics and Professional Conduct. Because each of these committees has distinctly different and vitally important duties, the following explanatory comments may prove helpful.

The Grievance Committee receives complaints from physicians or from laymen "pertaining to the relationship of physicians to each other or to their patients." After hearing and considering evidence submitted to it in a complaint against a member, the Committee may recommend to the Executive Board "appropriate action under the circumstances, including punishment by reprimand, fine, suspension, expulsion or the like . . .," or it may adjudicate the differences responsible for the complaint. The Board cannot initiate proceedings against a member. These must originate with the Grievance Committee. However, the Board, upon recommendation of the Committee, may expel or otherwise penalize a member by a vote of $5/7$ of its membership.

The Board can, if it so desires, refer a complaint against a member to the Society for its consideration. Likewise, the "defendant" member may appeal the Board's decision to the Society.

The Board is required to keep a complete record of complaints, proceedings, and other matter pertinent to the questions involved.

The Committee on Medical Ethics and Professional Conduct was established to fill a need not met by the Grievance Committee, that is, rendering an opinion as to the propriety of a member's conduct from the standpoint of medical ethics and good taste. The Society's Constitution and By-laws spells out functions of the Committee in the following language: "The Committee . . . upon request of a member of the Society, the Executive Board, or any committee of the Society, shall review activities of members in relation to the Principles of Medical Ethics of the American Medical Association and report thereon to the respective individual and/or bodies submitting the request."

The above explanation should clarify the duties and responsibilities of these committees sufficiently so that, at least where readers of this column are concerned, there should no longer be any misunderstanding as to their functions.

T. W.

"In and Out of Focus" will not appear in the June, July and August issues of MEDICAL ANNALS. It will be resumed with the September issue.

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* Rebating by practitioners of healing professions.

PROCEEDINGS OF SPECIAL BUSINESS MEETING

A special business meeting of the Medical Society of the District of Columbia was called for April 2, 1958, in order to select members to represent the Society on the Board of Trustees of both Medical Service of D. C. and Group Hospitalization, Inc. Dr. James W. Watts, President of the Medical Society, presided at the brief business session, which was held on the second of a series of three Motion Picture Nights, sponsored by the Program Committee.

Dr. Watts reported that the Woman's Auxiliary to the Medical Society had presented the Society with a framed copy of the proclamation of the District Commissioners designating March 30, 1958 as Doctors' Day. In observance of the same occasion, Dr. M. Noel Stow presented the Society with a letter opener used by Dr. Crawford Long, discoverer of anesthesia.

The Chairman called upon Dr. Herbert P. Ramsey, Chairman of the Executive Board, to present the Interim Report, which is published herewith following these proceedings. Of the three nominees submitted by the Board for membership on the Board of Trustees of Medical Service, Dr. James A. Dusbabek was selected by the members to succeed himself.

The Executive Board recommended the nomination of Dr. Ralph D. Whitley to succeed Dr. Paul Kiernan as a member of the Board of Trustees of Group Hospitalization, Inc., for a 5-year term. Dr. Kiernan was nominated from the floor. By vote, the nomination went to Dr. Whitley.

Following the business session, four outstanding medical films were shown; they concerned the menopause, obesity, thoracic injuries, and glaucoma. These films were discussed by Washington physicians, namely, Drs. Robert H. Barter, Laurence H. Kyle, Frank S. Ashburn, and Joseph Dessoff, respectively.

INTERIM REPORT OF THE EXECUTIVE BOARD

As stated in the agenda mailed you, this business meeting has been called for the specific purpose of considering two items of business. They are:

"Election" of Nominee or Nominees to Membership on the Board of Trustees of Medical Service for a 3-year Term to Succeed Dr. James A. Dusbabek Whose Term Expires at the Annual Meeting of Medical Service, April 9, 1958. Annually, the Society makes its selection of nominees to the Board of Trustees of Medical Service. This year the term of only 1 of the Society's representatives on the Board expires.

In accordance with the Service's by-laws, the Society must nominate 1 or more physicians to succeed Dr. Dusbabek. Names of the nominee or nominees must be in the hands of Medical Service prior to its annual meeting, April 9, 1958.

Every effort has been made this year to make it clear to the Society's membership, in the agenda sent them, that the selection of a nominee or nominees is in effect an "election." The nominee or nominees proposed by the Society must be accepted or rejected by the Service's Participating Physicians. If there is only 1 nominee, his name alone will be voted upon at the Annual Meeting of the Service. On the other hand, if there are 2 or more nominees, Participating Physicians in Medical Service will make their selection unless it is their decision to reject the nominee or nominees proposed. In this event another nominee or nominees will be submitted for their consideration.

It is the Board's recommendation that the name of only 1 nominee be forwarded by the Society to Medical Service for election to its Board of Trustees. However, it wishes to submit the names of 3 members from among whom the Society can select its nominee. They are: Dr. James A. Dusbabek, O. Hugh Fulcher, and W. Dabney Jarman. Other nominations can, of course, be made from the floor.

Appointment of a Member of the Board of Trustees of Group Hospitalization, Inc., for a 5-year Term to Succeed Dr. Paul Kiernan Whose Term Expired March 28, 1958. The Congressional Charter, under which Group Hospitalization, Inc., operates, provides that the Medical Society of the District of Columbia appoint a member to the Board of Trustees of Group Hospitalization, Inc., each year. This year the term of 1 of its appointees, Dr. Paul Kiernan, expired on March 28, 1958. As will be noted, the date when the appointment should have been submitted is past. However, the Board of Trustees of Group Hospitalization, Inc., extended

(Continued on page 274)

STRESS IN THE WORLD: THE INDIVIDUAL AND THE DOCTOR*

HOWARD A. RUSK, M.D., F.A.C.P.

Professor and Chairman, Department of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center; Associate Editor, The New York Times

We first began to really think about stress when we followed the dramatic experiments of Walter Cannon in the mid-twenties and his famous "alarm reaction." Through the past 2 decades, the work of Hans Selye has popularized the word stress, which is now household among endocrinologists and physicians, and also in most of the lay press, and our lay families as well.

I think stress is really a bad word to describe what I want to talk to you about this afternoon, because stress connotes to most people, strain. Stress has become a necessity in all of our modern life. We set our whole patterns of life by our stress end-point. If we hit it exactly, we live dynamic, purposeful, useful, happy lives. If we go over, we break. If we stay too far under, we vegetate. It is the keystone in our whole personality and physiologic development in this competitive society that we live in. Many feel, and I am one, that stress is a real factor and one that is very difficult to evaluate, in the increasing incidence of hypertensive and coronary disease. I call your attention to the fact that, of the big three at the top of the list, as far as the incidence of coronary artery disease is concerned, physicians, lawyers, and industrial executives lead the pack.

There is still a great deal of controversy about the effect of unsaturated fats in the diet and blood cholesterol levels, in geographic population comparisons throughout the world, as to just where this whole matter stands in incidence, but I think everyone agrees that stress is a fundamental.

I want to talk about stress as a beneficent, therapeutic friend, because I think in some instances, if it isn't used, it is just as dangerous in reverse as we now know bed rest to be. We learned, in the middle of World War II, all of the deconditioning phenomena that comes from just putting a person to bed: negative calcium balance, negative nitrogen balance, loss of vitamins, deconditioning of the myocardium—all of the things that now we accept as the sound reason for early ambulation after disease or surgery. But you can't live always up to a stress point, and then on a given day, when the magic page of the calendar turns, say, "I'm going to sit and rest and have a good time the rest of my life." You can't do it.

We have 14½ million people in the United States today beyond the age of 65. It is estimated that by 1980 this will be well over 20 million. I read an interesting statement made at a medical meeting in Sweden this summer, when a rather conservative scientist, also a clinician, made the flat-footed statement that he would not be surprised to see an expectancy of 100 in Sweden by the turn of the century. When you realize that in 1900 the expectancy was 49, and today it is the Biblical 3 score years and 10, and that 5 of those years have been added within the last 10 years of medical advance, this is not a far-fetched prediction.

I think that we in medicine are primarily responsible for creating this problem. We've done it with insulin, and liver extract, antibiotics, better surgical technics, mass X-rays, better public health practices and services, better nutrition and housing—put these all together, and we've created this aging population. Of course, everyone in this audience realizes that age is physiologic and not chronologic. Some people are old at 40 and others are young at 80.

I think it's very unfortunate that we have put a magic implication on a date, for the indiscriminate retirement at 63, 65, 67, whatever date you like, the most popular one being 65, loses for us our most precious human asset, and that is wisdom. People are not born wise. Wisdom only comes with experience, and experience only comes with time.

I think the following story might be apropos to tell here in Washington, because the setting was here. It happened 7 years ago when I spoke at a meeting at the Industrial War College on the utilization of older people and disabled people as part of a war mobilization effort. I described the problem, and the fact that studies in Oxford—recent studies then—had shown that you could teach an old dog new tricks; that an older person could accept the same type of vocational training with practically as good results as the young. I spoke of the dissipation of our wisdom, and our great manpower loss. After the meeting, the General in charge of the College walked with me to the car. He said, "I was very much interested in your discussion about retirement, the problems thereto, and the problems that are associated. You know, the Industrial War College is my baby. It was my dream, and I've headed it the 8 years it's been in existence. Now at a time when mobilization and all our production effort and its integration with the Department of Defense have never been so important in our history, I'm retiring at 63 next year." He said, "I've just passed a perfect physical examination, I wasn't faulted, and you know I'm retiring at the same age that the average senator becomes eligible for committee chairmanship."

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* Luncheon Address given extemporaneously in Washington, D. C., March 27, 1958, during the Forum on Medical Economics sponsored jointly by the Medical Council of the Washington Metropolitan Area and the Wm. S. Merrell Company of Cincinnati, Ohio.

I wonder, as you look back into history, how it would have been written today had Winston Churchill retired at 65. It would have been the year of Pearl Harbor.

We in medicine have the tools in our hands today, even though some of them are crude, to assess physically and physiologically, and emotionally and psychologically, the individuals who can continue to work in their same job, or can do a different job at a slower pace, if they want to work, without danger to themselves or their fellow workers. They need to be used.

I think also that it is our responsibility to practice a new type of preventive medicine in this area that is going to be the primary problem in preventive medicine of the future. It's much more difficult to administer a preventive program in geriatrics than to give an injection of Salk vaccine, for here we must use the social tools. I'll give you an illustration.

Fourteen years ago, in one Welfare Office in the Bronx in New York, the employees couldn't get any work done because there was a constant stream of old people coming by all day long with some kind of complaint. Finally one worker said, "I don't believe these people really have anything to complain about; they don't have any place to go." Someone proposed, "Let's set up a little club for them, and maybe they'll go there, and we'll get them out of our hair." So they got 3 rooms in an abandoned city hall and they furnished them with an old, beat-up piano, a second-hand pool table, and 3 card tables. They called the recalcitrants in and said to them, "We're setting up a new club for you. It's to be known as the Hodgson Center, and you are the charter members. You make the ground rules." They were delighted and responded, "We'll make the ground rules. In the first place, you can't get in till you're 65. Second, we'll elect officers every 3 months, so everybody will have a chance. Third, everybody will serve on a committee." They had committees for everything. I saw this center after it had been in operation 5 years, with 700 members, 65 to 96, average age 76. It had had a phenomenal growth. They had work shops, a dance once a week, they produced a play once a month that an 81-year-old playwright wrote, and there had been 11 weddings since the place opened. It was terrific.

However, the thing that intrigued me medically was this, that the members of this club, compared to a similar segment of the population, of the same age group and the same economic and social strata in New York City, had 50 per cent less admissions to hospitals for physical illness, and the visits to physicians and to clinics had also dropped 50 per cent. I then asked this question, "How many of these people have had senile psychotic breaks, requiring admission to an institution?" They replied, "We don't know, but we'll try to find out." While they were going over their records, I went to the American Psychiatric Association and I asked them how many psychotic breaks they would expect in this age group, of this social and economic level, and they gave me the figure of 40. When the club members had searched the records of the 700, they could not find a single instance of admission to a mental hospital for senile psychosis. Now I know that's a statistical aberration. But I also know, too, that if they had sent 40 in, 8 a year for 5 years, it would have cost the Government $10,000 each year more than it cost to run the center for the 700. I know, too, it's not too much of a statistical aberration, because 2 years ago I went to the third anniversary of the fourteenth such center set up in New York, in the most difficult area in New York City—a combination of Harlem and the Puerto Rican section, a very deprived section. There were 26 nationalities and ethnic origins represented in this group of 400 members, and in 3 years there had only been 2 mental breaks among the members.

What I'm trying to emphasize by this little story is that there is something, which every one of you in this room knows as well as I, in being busy and having purpose in life, in being happy, that prevents the progression, at least the symptoms of progression, of atherosclerosis. It is bound up obviously in the complex, endocrinologic, metabolic mechanism that nature has given us. Some day I hope that we will find the answer biochemically as to just what this substance is.

To put it in reverse, let me report to you an unreported series of cases in the press at the present time, a retrospective evaluation in our own clinic of 250 patients who had had strokes of apoplexy. The average age was 63. The average time which elapsed from stroke to training was 9 months. The average training time was 7 weeks. We were trying to correlate what had happened in these individuals 2, 3, and 5 years after their rehabilitation. We found that the success of rehabilitation had absolutely no correlation with the severity of the neurologic insult. We had good results with patients who remained completely hemiplegic, who required a long-legged brace, or were confined to their wheelchair, but who learned to do things from the wheelchair; and we had poor results with patients who had only a little residual in one hand.

But there were 3 factors that correlated across the board. The patients did well, were able to get out of the hospital, were able to live non-institutional lives, if (1) they had a job to go to, (2) they had a home to go to, and (3) if they had someone who loved them. Now all of us have sensed this fact, but I don't think we've known how vital it is in our patients who have the problems of disability and chronic disease, nor its tremendous importance in our own lives.

I think we in medicine have done a particularly good job—I think we've been fortunate to be in a position to do so—with our own retirement problems. I thing we've sensed the necessity of doing something, so the physician who wants to stays on in medicine, writes, does clinical research, does consultation, maintains a small office practice, keeps his old patients but does not take on any new ones, does no operative surgery any more but only consultation or some phase of basic research he's never had time to do. If not, and he's interested in another field, he has bought himself a little farm where he can try his hand at agriculture, or head the community services in his community, or one of a thousand things that he hadn't had time to do before.

It's been preventive medicine that we have had the sixth sense to do especially for ourselves. Now we must apply the social and psychological tools to the emotional necessities of our patients facing retirement. We must give them therapeutic stress by a change of work, or a secondary avocation, or a new vocation. Stress must be used as a therapeutic friend. It's a tool in our hands which I think we will find as valuable in the field of aging as antibiotics and some of the great new therapeutic treasures of the last decade seem to us now in the management of infectious diseases.

We're living in a world that is so technologically precocious that it is hard for us to comprehend, but in many ways we are spiritually adolescent. You remember when Sputnik came, only a few months ago, our consternation, shame, and how upset we were and still are? I don't think the real answer to the original Sputnik was several little Sputniks. I think we had an answer, an antidote, if you will, in our hands, that had we used, and had we so informed the peoples of the world at the time, there would have been no necessity for us in the United States to bow our heads in technologic shame. All we needed to say was: "This is a magnificent achievement. We congratulate you. We, too, are working in this field. At a given time when our projects develop to where we want to take this step, we also will be sharing the stratosphere with our own experimental satellites. We're more interested right now in the problems of people than we are in the stratosphere. We call to your attention in the Soviet Union that there are 200 million cases of malaria each year in the world, and it's still the number one cause of death. We'd like you to remember too that we don't have malaria any more in the United States, but here is our check (and it was given within a matter of 2 or 3 weeks after Sputnik), the first payment on $108,000,000 which we have pledged to the World Health Organization as a part of the total of $500,000,000 that will eradicate malaria from the face of the earth. Not control, but make it a disease of the past. We feel that for those 200,000,000 people out of the billion, this will let them understand us in the United States better than anything that we could do in the stratosphere."

I've never been any place in the world, and that includes the Soviet Union, where, when one talked about the problems of the sick and the crippled, and the disabled, regardless of race or creed or color, geographic barriers, or iron or bamboo curtains, you couldn't speak a common language. That's why I feel that we in medicine have such a magnificent opportunity, and also such a heavy responsibility, because we possess this language that goes beyond the present babble of tongues, and we've seen its results in so many places.

I think of Korea in wartime, and its people—a country that had been fought over five times in many places. While on a mission there in 1953, when the war was still on, the thing that amazed me about the Korean people was that I never head a child cry, I never heard a man in a hospital groan in pain, I never heard a Korean ask for anything that in the next breath he didn't say, "Won't you help us to fight to be free? We don't want chocolate bars, or delicacies. We want only rice, to give us strength to fight." I don't think they would have had such stamina of spirit had it not been for institutions like the Maryknoll Sisters' clinic in Pusan, operating under unbelievable difficulties, with 2, 3, 5 thousand patients a day. Mothers would sit all night in the street with their kids in their arms in order to get care. Tuberculous meningitis was on an outpatient basis because there were no beds. But regardless of deprivation and danger, these people realized the Maryknoll Sisters were there to stay. And there was the Children's Castle which the GIs built, the first one for orphans, for Korean waifs, built because they saw the need and wanted to. I cite the experience that Dr. Dooley and his team have had in Laos, one small mission. They went in, clear into the hinterland, not because the Government sent them, not because they had to go, but because they wanted to go. Now your own Dr. Comanduras is making a trip around the world to pick out new places where 6 new such missions will go. We have in our hands the tools to make at least one small, firm cornerstone in this structure that we're trying to build for a peaceful world. We're fighting two wars: The first is the war for survival, and that is fought with armies, guided missiles, bombers, and all of the weapons of destruction. The second is the war for peace, and you never win the second war with guided missiles. You win that in the hearts of men.

I think all of us were deeply heartened in January when we read in the President's State of the Union Message that there is one place where we felt we can start to work with the Russians, now, at once, the attack on malaria, on heart disease, and cancer, and the other scourges of mankind. A week later (this wasn't in the press) Mr. Khrushchev stated in Minsk, "I read the message; the one thing we can agree with is coöperation in medical research. Let's start together on this now."

I know perfectly well that politicians in the Soviet Union know what a great vehicle health services are for carrying ideas and ideals to the world. I am disturbed that they are graduating 27,000 young doctors a year to our 7,000. I'm disturbed to see the cities filled with physicians and the hinterland filling. I'm disturbed to hear of the enthusiastic reactions of the people to the two hospitals they've built in Afghanistan and Ethiopia, fully staffed, and of the ones that are being prepared, one on the border of Laos and Red China and the other on the border of Thailand and Red China. Peoples of the world don't understand who builds the dams and the roads, but they do understand who helps the lame to walk and the blind to see and their sick children to be well again.

And so I say that we American physicians have a therapeutic responsibility to the world. Maybe if we can lead the way to understanding more actively and dynamically, other professions will follow.

A British philosopher, 400 years ago, said this all so simply, in one sentence: "If every man would mend a man, then would all the world be mended." I think that all of us can take special pride in the fact that we are a profession who mend. This is our opportunity in a torn and ravaged world.

NEW DEAN OF MEDICINE AT GEORGETOWN UNIVERSITY

Dr. Hugh H. Hussey, Professor and Director of the Department of Medicine at Georgetown University School of Medicine, will become the new Dean of Medicine on July 1, according to an announcement from the Very Reverend Edward B. Bunn, S. J., President of the University. Dr. Hussey will succeed Dr. Francis M. Forster, who is resigning the post to devote all his time to the field of neurology. Dr. Forster will continue at Georgetown as Professor and Director of the Department of Neurology, a position which he has held along with the deanship. Dr. Forster was appointed Dean in 1953.

Dr. Hussey, a native Washingtonian, has been connected with Georgetown since he received his M.D. degree in 1934. He interned at Georgetown Hospital, held a fellowship in medicine at the Center for 2 years under Dr. Wallace M. Yater, who was then Professor of Medicine, and has served on its teaching staff in internal medicine since 1936. In 1942 he was named Associate Clinical Professor of Medicine, in 1953 Professor and Head of the Department of Preventive Medicine and Public Health, and in August, 1956 he became head of the Department of Medicine.

He is known nation-wide as the Medical Editor of GP and as a member of the Board of Trustees of the American Medical Association.

Dr. Hussey has served the District Medical Society in many ways. He has served on many committees, both as member and chairman. For many years he was senior delegate to the AMA and a member of both the Executive Board and the Editorial Board of Medical Annals, the Society's official publication.

ANNUAL MEETING OF PARTICIPATING PHYSICIANS OF MEDICAL SERVICE OF D. C.

The tenth Annual Meeting of Participating Physicians of Medical Service of the District of Columbia was held in the auditorium of the D. C. Medical Society, April 9, 1958. The meeting was held for the purpose of electing Trustees, voting upon recommended changes in fees, presenting reports, and holding open discussion during which Participating Physicians are given the opportunity to express their views with regard to the policies and operation of Medical Service and make recommendations for changes in existing policies or the consideration of new developments.

The meeting was presided over by Dr. Donald Stubbs, President of Medical Service, who opened the meeting by paying a tribute to Mr. Bruce Baird, Treasurer of Medical Service, and the other lay members of the Board of Trustees for their unselfish dedication to the interest of Participating Physicians as expressed by their service on the Board. Mr. Baird reported on the financial position of Medical Service at the end of 1957, and pointed out that claims expense for that year alone amounted to $6,890,000, an amount which exceeded by more than $1,000,000 the amount paid to physicians for services rendered subscribers in the preceding year. Mr. Baird concluded his report with the comment that the continued transition from the Surgical Contract to the new Surgical-Medical Program should help many persons in the Washington area budget in advance for more physician services and that, while accomplishing this worthwhile objective, Medical Service continues to operate on a sound and conservative basis, is accumulating modest reserves, and investing its funds judiciously.

A report on administrative services was given by Mr. George B. McGovern, Manager of Medical Service, who pointed out that, at the end of 1957, there were 650,613 persons enrolled in Medical Service, a net gain of 51,206 participants for the year. Of these, 170,743 were enrolled under the Surgical-Medical Contract and are thus eligible for a number of services which are not provided under the old Surgical coverage, and 7,671 of these participants were protected under Major Medical coverage. Mr. McGovern paid tribute to the administrative force working for Medical Service, stating that the Claims Department processed more than 200,000 claims in 1957, or approximately 800 every working day, a 27 per cent increase in the claims load over the previous year. Highlights of his report pointed to the manner in which the Claims Department absorbed the processing of 8,815 Medicare claims, representing a payment of more than half a million dollars to physicians in the Washington area, and the efforts made by the Administration to keep operating costs at a minimum figure in order to reserve the subscriber's dollar for the payment of claims. Despite the complexity of its operation, Medical Service kept its operating expense to 9.05 per cent of earned subscription income in 1957, a figure which is substantially below the average for Blue Shield Plans.

A report of the Medical Advisory Committee was given by its chairman, Dr. William B. Walsh. In introducing Dr. Walsh, it was pointed out by Dr. Stubbs that the Medical Advisory Committee is a liaison committee which is made up of physicians from various medical groups in the Washington Metropolitan Area. In his report, Dr. Walsh outlined the composition of the Committee, its functions, and authority. He indicated a number of actions which the Board of Trustees has taken recently in which the Committee concurred, and several additional recommendations which the Committee has made. He stated that the Committee has designated a subcommittee to study the means and methods of obtaining a separate charter for Medical Service, and the Participating Physicians in attendance at the meeting passed a motion requesting the Board of Trustees of Medical Service to consider the advantages and disadvantages of seeking a charter for Medical Service from the Congress of the United States.

The Chairman then introduced Dr. Philip A. Caulfield, Chairman of the Physicians' Services Committee. The Chairman pointed out that Medical Service of D. C. is a community Plan which operates in the interests of physicians and public, and that the Committee on Physicians' Services in adjudicating claims and establishing allowances in a number of individual cases acts as guardian of the conscience of Medical Service of D. C. He paid tribute to the long hours and serious concern which the members of the Committee devote to the operation of Medical Service, and Dr. Caulfield in his report pointed out that the Committee had held 8 meetings in the preceding year with an average duration of 3 hours each, during which more than 200 cases were disposed of. Dr. Caulfield explained the serious responsibility which Committee members assume in rendering judgment on actual claims cases, pointing out that the decision of the Committee in a single case may often set a precedent which will apply to many cases of a similar type. Dr. Caulfield also pointed out that a lack of detailed description in a complicated case may work an injustice on the reporting physician, since the Committee may not recognize the extent of the surgical problem in such a case. It was explained that this is particularly true in cases of lacerations, burns, skin grafts, and other procedures for which no fixed fee is established, and it was recommended that physicians reporting this type of procedure submit a detailed report indicating the size of the area, the length of the wound, its location and severity.

A report on the activities of the Physician Relations Committee was given by Dr. Henry D. Ecker, Chairman. In introducing Dr. Ecker, it was pointed out by Dr. Stubbs that the key problem in the smooth functioning of a Blue Shield Plan is the establishment and maintenance of good physician relations. He explained that the Physician Relations Committee was established by the Board only a year ago, but that the Committee, under the direction of its able chairman, had accomplished a great deal of good in that short space of time. In his report, Dr. Ecker pointed out that the Physician Relations Committee has reinstituted the use of the *Newsletter*, with an issue being distributed to Participating Physicians in November 1957, and another issue being distributed in January 1958. He also stated that the Committee has arranged for a pocket-sized card, to be distributed to physicians, which will compare the benefits available under the principal contracts of Medical Service and provide information about how such contracts can be identified. The cards were made available for the first time at the meeting, and it is expected that they will be distributed to Participating Physicians in the near future.

Another accomplishment of the Physician Relations Committee, explained by Dr. Ecker, was the refinement of the method whereby medical societies will submit nominations to the Board of Trustees of Medical Service. Among other actions and recommendations of the Committee reported by Dr. Ecker was the Committee's position that one of the most potent forces for the encouragement of good physician relations is being overlooked by the failure of Medical Service to enroll as subscribers the nurses and office assistants of Participating Physicians. It was explained that this problem is being studied by the Medical Society of D. C. and Group Hospitalization, as well as by Medical Service, in the hope that some method can be devised for enrolling physicians' office assistants on a group basis.

President Stubbs reported on the growth and accomplishments of Medical Service during the 10 years of its existence, pointing out that the Plan has made remarkable progress and has been particularly responsive to changing conditions and demands. He then pointed out some of the significant actions taken by Medical Service during the past year, such as approval of the program for participation in national accounts, and the expression of confidence in Medical Service which was given by Participating Physicians in the return of their ballots indicating acceptance of the allowances applicable to national accounts. Dr. Stubbs then went on to point out the role which is played by Blue Shield Plans in the medical economy of the country, and emphasized the dependence of other programs upon Blue Shield coverage, pointing out that Blue Shield is the only type of prepaid medical care in which the physicians have a strong voice and influence. In conclusion, he summarized his own convictions of the meaning of Blue Shield to the profession and to the public as follows:

"With the phenomenal growth of health insurance, the interest of Government, local and national, has intensified rather than lessened. The need is greater to make the voluntary approach work lest it be supplanted. Clear logic now supports the thesis that the 'service' approach must retain a large degree of success in order that indemnity programs may have a safe stability. About Blue Shield I now have these beliefs:

"First, I believe that the whole structure of voluntary health insurance is dependent upon Blue Shield. By that I mean that Blue Cross will not survive without Blue Shield, nor will the commerical health insurance industry, especially the major medical part of it. Only a compulsory, regimented system can supplant this whole voluntary system, and the keynote to its survival is the Blue Shield idea as we represent it here today.

"Second, I believe that free medicine can survive only with Blue Shield. They are not identical entities, but they are so mutually interdependent that neither one will go very much farther without the active support of the other. Their parallel courses must be as mutually supportive as the uplifting pillars of a great temple.

"Third, I believe that Blue Shield must be the means to provide service to the public at a community rate and at the lowest rate that is fair to the profession. We have Blue Shield standing in the middle on this issue. The public would like to get the most care it can for the lowest rate, but there is a point beyond which they cannot go. The forces of economic necessity will determine that point, ultimately, but we with statesmanship and intelligence can make a good choice of the exact line where that must be. We should not abuse the profession with these rates, but neither should we permit the public to be abused. That is the very clear choice that we will have to make.

"And finally, I believe that the medical profession must build into Blue Shield the controls to share equality of opportunity for doctor and patient alike and to prevent exploitation and inflation.

"Free medicine must build this kind of Blue Shield and support it strongly enough as its own to make it work, and must do this as the cheapest price of its own survival in the form in which we would have it survive."

Recommendations of the Board of Trustees with regard to allowances for new procedures and changes in the schedule of fees were presented for the Board by Dr. James A. Dusbabek, First Vice President of Medical Service. Some questions were raised with regard to changes for several specific procedures on the list, and approval of these procedures was deferred. The balance of the list of recommended fees was then approved.

Nominations to the Board of Trustees as submitted by the various eligible groups in the Washington community were presented, and by unanimous action, the following nominees were elected to the Board of Trustees of Medical Service:

Nominee:	*Submitted by:*
BRUCE BAIRD President, National Savings & Trust Company	The Board of Commissioners of D.C. for a 1-year term
V. M. HOGE, M.D. Assistant Surgeon General, Public Health Service	United States Public Health Service for a 1-year term
PHILIP M. TALBOTT Senior Vice President and Secretary, Woodward and Lothrop	Washington Board of Trade for a 1-year term
FREDERICK C. HEATH, M.D. Deputy Director, D.C. Health Department	District of Columbia Health Department, for a 1-year term
F. PRESTON TITUS, M.D.	Medical Societies of Alexandria, Arlington County, and Fairfax County, Virginia, for a 1-year term
JOHN S. HAUGHT, M.D.	Medical Societies of Prince Georges County and Montgomery County, Maryland, for a 1-year term
ROBERT M. HOLMES, JR. Director of Personnel, Library of Congress	Medical Service of D.C. for a 1-year term
ROBERT C. MCCANN Vice President, Chesapeake & Potomac Telephone Company	Medical Service of D.C. for a 1-year term
JAMES A. DUSBABEK, M.D.	Medical Society of D.C. for a 3-year term

Other members of the Board of Trustees, elected in previous years after nomination by the Medical Society of D. C., who will continue to serve during the coming year are Drs. Donald Stubbs, Henry L. Darner, Henry D. Ecker, Ernest A. Gould, Edgar M. McPeak, and W. Robert Perkins, Jr.

The new Board of Trustees of Medical Service met for the first time on April 15 and elected the following officers to serve during the new year:

President: Donald Stubbs, M.D.
First Vice President: James A. Dusbabek, M.D.
Second Vice President: Robert M. Holmes, Jr.
Treasurer: Bruce Baird
Assistant Treasurer: Nelson J. Foster
Assistant Treasurer: Douglas R. Smith
Secretary: Theodore Wiprud
Assistant Secretary: F. P. Rawlings, Jr.
Assistant Secretary: George B. McGovern

Also, the new Board approved the appointment of the Executive Committee, to be headed by Dr. Stubbs. Other members are Dr. Darner, Dr. Dusbabek, Dr. Ecker, Mr. Holmes, and Mr. Wiprud, Secretary.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, March 24, 1958, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Jesse B. Barber, 626 Keefer Place, N.W.
George Chornesky, 3022 Tennyson Street, N.W.
Michael A. Corrado, 2000 Connecticut Avenue, N.W.
Evelyn E. Henley, 1824 Belmont Road, N.W.
William Chia Len Liu, 900 17th Street, N.W.
William D. Oldham, 915 19th Street, N.W.
George E. Stevens, Georgetown University Hospital

Associate Members

Conrado Bogaert, 2324 Iverson Street, S.E.
Erman W. Edgecombe, 453 Park Road, N.W.
Hei Kit Lee, 1710 Q Street, N.W.
Joao W. T. F. Pereira, Armed Forces Institute of Pathology
Frank J. Schaffer, Veterans Administration Central Office
Pauline A. Swarm, 11013 Midvale Place, Kensington, Md.
Stanley W. Weitzner, 3339 Buchanan Street, Mt. Rainier, Md.

Resident-Intern Members

Kamel Hassan, 3500 14th Street, N.W.
Albert J. Miele, 5930 13th Street, N.W.
Richard C. Vadney, 2626 41st Street, N.W.

The following applicants for membership will be voted on at the meeting of the Executive Board, May 26, 1958.

For Active Membership

Lawrence R. Cannaday, Meharry Medical College—1954
William F. Colliton, Jr., Georgetown University—1948
Joseph B. Davis, Rush Medical School—1941
Robert L. Dow, Cornell University—1948
Alex E. Fairshter, Chicago Medical School—1937
Stanley Gould, New York Medical College—1955
Vernon E. Martens, St. Louis University—1937
Harry M. McAllister, Johns Hopkins University—1949
John F. Nancarrow, University of Pennsylvania—1954
Donald P. Roach, National University of Ireland—1955

For Associate Membership

Leonard Apt, Jefferson Medical College—1945
Jack Brook, New York Medical College—1953
Charles C. Chow, National Tung-Chi University (China)—1949
William Cody, Tufts College Medical School—1951
Virgil J. Dorset, George Washington University—1934
Albert Modlin, George Washington University—1949
Irene E. Roeckel, Heidelberg University (Germany)—1948
Jesse L. Steinfeld, Western Reserve University—1949

For Resident-Intern Membership

Renald A. Cote, Georgetown University—1956
Robert E. Goyne, College of Medical Evangelists—1956
Wellington Hung, George Washington University—1957

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Human Infertility. C. LEE BUXTON, M.D., Med. Sc.D., Professor and Chairman, Department of Obstetrics and Gynecology, Yale University School of Medicine, New Haven, AND ANNA L. SOUTHAM, M.D., Assistant Professor of Obstetrics and Gynecology, College of Physicians and Surgeons, Columbia University, and Director of Sloane Hospital Infertility Clinic, New York. With a Chapter on Endometrial Diagnosis by Earl T. Engle, Ph.D., Professor of Anatomy, College of Physicians and Surgeons, Columbia University, New York. Price, $7.50. Pp. 229. New York: Hoeber-Harper, 1958.

Endocrine Pathology of the Ovary. JOHN MCLEAN MORRIS, M.D., Associate Professor of Gynecology, Yale University School of Medicine, New Haven, Connecticut,

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
March 4	Dr. Julius S. Piver	Cancer	Parent-Teachers Association, Cottage City Elementary School
March 16	Dr. John R. Cavanagh Dr. Winfred Overholser	Panelists, The Durham Decision and Its Application to Criminal Cases in D. C.	WTTG-TV Series, Junior Bar Section of District Bar Association
March 18	Dr. John R. Pate	Workshop on Growth Patterns in Adolescence	Parent-Teachers Association, Langley Junior High School
March 21	Dr. Thomas E. Griffin	Psychiatry and the Law—Wexberg Memorial Lecture	D. C. Mental Health Association
March 28	Dr. Anthony Zappala	Group and Activity Therapies in a Clinic Setting	Annual Meeting and Institutes, National Council on Alcoholism, New York City
April 14	Dr. Marvin E. Perkins	Mental Health: A Component of Organized Public Health—Wexberg Memorial Lecture	D. C. Mental Health Association
April 14	Dr. Julius Piver	Cancer	Chillum Ray Civic Organization
April 16	Dr. Benjamin Karpman	Panelist, "Insanity" and the Law	Montgomery County Mental Health Association, Inc.
April 23	Dr. Winfred Overholser	Shakespeare's Psychiatry—and After	Folger Library Annual Address
May 1	Dr. Anthony Zappala	Alcoholism, a Sociomedical Problem	Citizens' Committee on Alcoholism, Greensboro, N. C.

AND ROBERT E. SCULLY, M.D., Clinical Associate in Pathology, Harvard Medical School; Associate Pathologist, Massachusetts General Hospital, Boston, Massachusetts. Price, $8.50. Pp. 151, with 75 illustrations. St. Louis: Mosby, 1958.

New and Nonofficial Drugs, containing descriptions of therapeutic, prophylactic and diagnostic agents evaluated by the Council on Drugs (formerly, Council on Pharmacy and Chemistry) of the American Medical Association—1958. An Annual Publication Issued under the Direction and Supervision of the Council. Pp. 645. Philadelphia: Lippincott, 1958.

An International Symposium on Aldosterone. Edited by ALEX F. MULLER, M.D., AND CECILIA M. O'CONNOR, B.Sc. Price, $8.00. Pp. 232, with 84 illustrations. Boston: Little, 1958.

You Can Increase Your Heart-Power. PETER J. STEINCROHN, M.D., F.A.C.P. Price, $4.95. Pp. 381. Garden City, N. Y.: Doubleday, 1958.

Neomycin. Its Nature and Practical Application. SELMAN A. WAKSMAN, Editor; HUBERT A. LECHEVALIER AND BURTON A. WAISBREN, Associate Editors; ROBERT A. DAY, Assistant Editor. Published for The Institute of Microbiology, Rutgers University. Price, $5.00. Pp. 412. Baltimore: Williams & Wilkins, 1958.

Ciba Foundation Symposium on the Chemistry and Biology of Mucopolysaccharides. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.Ch., AND MAEVE O'CONNOR, B.A., Editors for the Ciba Foundation. Price, $8.50. Pp. 323, with 48 illustrations. Boston: Little, 1958.

News and Personals

MEETINGS

It is expected that somewhere between 12 and 15 thousand physicians will attend the **107th Annual Meeting of the American Medical Association** in San Francisco, June 23–27. Among them will be Drs. Raymond T. Holden and Victor R. Alfaro, the Medical Society's official delegates to the AMA, Dr. Edward W. Nicklas, Alternate Delegate, and Theodore Wiprud, Secretary of the Society. The sessions of the House of Delegates will be at the Sheraton-Palace Hotel. The Civic Auditorium, the adjacent new Plaza Exhibit Hall, and other surrounding buildings will provide space for scientific and technical exhibits, films, TV and lectures.

Plans have been made to launch a new, 16-page tabloid newspaper, called *The AMA News*, during the Convention. Much of the news appearing in the publication, to be distributed every two weeks, will come from state and county medical societies as well as from a number of correspondents located in key geographical areas.

The annual **golf tournament** of the American Medical Golfing Association will be held in conjunction with the AMA Convention, June 23, at the Olympic Lakeside Golf and Country Club in San Francisco. Tee-off time is from 8:00 a.m. to 2:00 p.m. All golfing doctors are invited to participate. They should write for full information to Dr. James J. Leary, Secretary, 450 Sutter Street, San Francisco.

The headquarters for the 35th Annual Convention of the Woman's Auxiliary to the American Medical Association will be the Fairmount Hotel.

Two **medical civil defense meetings** will be held in San Francisco immediately preceding the AMA's meeting. On June 19–20 the 12th Naval District will sponsor a symposium on "Medical Problems of Modern Warfare and Civil Defense" at the U. S. Naval Radiological Defense Laboratory, and on June 21 the AMA's Council on National Defense will sponsor its 6th Annual National Medical Civil Defense Conference at the Sheraton-Palace Hotel. All physicians interested in civil defense planning are urged to attend these two meetings.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia held its regular meeting on March 24, 1958. President Watts submitted for approval the names of the following physicians to serve as committee chairmen under Dr. Robert E. Moran, General Chairman for the Medical Society's 27th ANNUAL SCIENTIFIC ASSEMBLY:

Program: Dr. George E. Schreiner
Scientific Exhibit: Dr. Howard S. Madigan
Motion Pictures: Dr. Paul R. Wilner
Attendance: Dr. Frank S. Ashburn
Social Affairs: Dr. Alejandro F. Castro
Finance: Dr. Frederick B. Hartsock

The Board approved the President's selection of committee chairmen.

Dr. William P. Herbst was appointed to the Committee on Medical Philosophy at the request of its Chairman, Dr. Joseph S. Lawrence.

The Secretary read a letter which Dr. Daniel L. Finucane, Secretary of the Commission on Licensure, had addressed to Dr. J. Ogle Warfield, Jr., advising him that he had been appointed to the D. C. Board of Examiners in Medicine and Osteopathy, succeeding Dr. Daniel L. Borden, who recently resigned.

The establishment of a **Joint Council to Improve the Health Care of the Aged** was announced, April 8, by the sponsoring organizations, the American Medical Association, the American Dental Association, the American Hospital Association, and the American Nursing Home Association. The Council will be made up of 3 representatives from each organization.

Objectives of the Council are: "to identify and analyze the health needs of the aged; to appraise available health resources for the aged; and to develop programs to foster the best possible health care for the aged regardless of their economic status."

Headquarters are in the offices of the AMA at 535 North Dearborn Street, Chicago.

The American Psychiatric Association has announced a $100,000 grant from the Smith Kline & French Foundation to continue the Foundation's fellowships in psychiatry through 1960. Seven main types of fellowships are available: advanced training of fulltime staff psychiatrists at public mental hospitals and schools for the retarded; awards to hospitals for visiting lectureships and for teaching lectureships; support to medical schools for extension training programs; student fellowships in psychiatry; medical fellowships in psychiatry for physicians other than psychiatrists; foreign scholar lectureships to bring outstanding men to the United States; and some residency training fellowships.

Applications for consideration in October must be received by the Fellowship Committee by September 15. Application forms may be obtained from the Committee, Box 7929, Philadelphia, Pa.

Garfield Memorial Hospital, a Washington institution since 1884, closed its existence as such, March 28, when the last of its facilities were transferred to the new Washington Hospital Center. New patients had not been admitted to Garfield since March 20.

No announcement has been made regarding the disposition of the old buildings. The Government takes title to the property as a condition of the arrangement setting up the new Hospital Center.

Garfield was founded by a citizens' group which collected money by popular subscription for a permanent memorial to the later President Garfield in the form of a general hospital. Its Administrator, Mr. Richard M. Loughery, is Deputy Administrator of the new Washington Hospital Center. Mrs. Katherine Knauff, Director of its Nursing School, is head of nursing at the new Center.

The creation of a new **Division of Radiological Health** in the Public Health Service has been announced by the Honorable Marion B. Folsom, Secretary of Health, Education, and Welfare. The new Division will provide technical assistance to state agencies in dealing with medical, industrial, and other activities involving public exposure to radiation. It will also conduct research and training programs. Chief of the new Division will be Dr. Francis J. Weber, presently Medical Director of the regional office in Denver.

The ninth annual publication of **"Reviews of Medical Motion Pictures"** is available on request from the Film Library of the American Medical Association. This publication is prepared by the Council on Scientific Assembly, Motion Pictures and Medical Television, and contains reprints of all film reviews published in *The Journal of the AMA* during 1957.

The annual **Kober Lecture** of Georgetown University was given this year by Dr. Homer W. Smith, physiologist and author, April 22, in Gaston Hall. Dr. Smith, Professor of Physiology of New York University College of Medicine, spoke on "The Development of Modern Renal Physiology." The Kober Lecture, a provision of the Kober Foundation, was established at Georgetown by Dr. George M. Kober, who was Dean of the University's School of Medicine from 1900 to 1929.

Dr. Fount Richardson, of Fayetteville, Arkansas, was elected **President-elect of the American Academy of General Practice** at its 10th Annual Scientific Assembly in Dallas, Texas, March 24–27. Dr. Richardson will be installed President at the 11th Annual Assembly of the Academy in San Francisco next March.

The District of Columbia Crippled Children's Society held a luncheon at the Willard Hotel, March 14, in connection with its annual campaign for funds. At the luncheon, Mr. Frederick P. Siddons, President of the Society, announced that land had been purchased at 13th and Girard Streets, N.W., for a new clinic, kindergarten, and school. Construction is already in progress, and the building is expected to be ready for use early next year. The

Society, which has been housed for many years past at 1757 Massachusetts Avenue, N.W., is temporarily occupying offices at 2301 Pennsylvania Avenue, N.W.

The Yater Clinic moved from 1801 K Street, N.W. into its own building at 1780 Massachusetts Avenue on April 1. The 4-story building which the Clinic now occupies was formerly the Belgian Embassy. It has been entirely renovated, with modern equipment installed throughout.

New officers of the **Washington Psychiatric Society** for 1958–59 are:

Dr. Robert A. Cohen, *President*; Dr. Norman Taub, *President-elect*; Dr. Marvin L. Adland, *Secretary*; Dr. Morris Kleinerman, *Treasurer.*

The Washington Urological Society elected new officers on April 7. They are: Dr. Michael A. Puzak, *President-elect*, and Dr. G. Roland Gable, *Secretary-Treasurer.* Dr. Herbert A. Goldberg, who was elected to office last year, will become President of the Society in September.

The Society will hold its first meeting on September 8 and will schedule meetings every six weeks following. The date of the next annual banquet is March 14, 1959.

At the April meeting of the **Clinical Club of Washington,** the following officers were elected for 1958–59:

Dr. Robert R. Montgomery, *President*; Dr. Max J. Fischer, *Vice President*; and Dr. Vincent L. O'Donnell, *Secretary-Treasurer.*

Instead of a one-week observance to acquaint the public with the problems of hearing loss, the American Hearing Society has designated the whole month of May as **Better Hearing Month.** It is estimated that there are 15 million hard-of-hearing persons in the United States and that some 3 million of these are children, many of preschool age.

Mr. John Sargeant is the new Executive Secretary of the **Medical and Chirurgical Faculty of Maryland.** He comes to Baltimore after having served as Executive Secretary of the Broome County Medical Society in Binghamton, New York, since March 1953. The Faculty of Maryland has a membership of 2,900.

PERSONALS

Dr. Addison M. Duval has announced that he will retire next year as Assistant Superintendent of St. Elizabeths Hospital; this will mark the completion of 30 years of Federal service at the same institution. At his retirement, June 30, 1959, Dr. Duval will become Director of the Missouri State Division of Mental Diseases.

Dr. Duval, a native of Virginia, received his medical degree from the Medical College of Virginia in 1929. For 25 years he has been on the faculty of George Washington University, the last five years as Clinical Professor of Psychiatry.

Dr. Duval has been generous of his time and talents in the promotion of community endeavors, especially in the field of youth guidance. He is a member and Past Chairman of the Commissioners' Youth Council of D. C.; a member of the Advisory Committee of Juvenile Court, D. C.; member and Past President of the Kiwanis Club of Eastern Branch, D. C., and director of the Kiwanis Clinic; and a member of the D. C. Advisory Committee on the Coördination of Mental Health. These are only a few of the channels through which Dr. Duval has made a significant contribution to this community.

Dr. Hugh H. Hussey, who will become Dean of Medicine at Georgetown University, July 1, has received two additional appointments of national importance. At the 11th Annual Meeting of the Board of Directors of the World Medical Association, United States Committee, held in New York City, March 14, he was one of 3 new members elected to the Board, which is composed of nationally known physicians and industrialists. Chairman of the Board is Dr. Austin Smith, Editor of *The Journal of the American Medical Association* and Executive Editor of the *World Medical Journal.*

Dr. Hussey was one of 4 new members added to the Board of Directors of the American Medical Education Foundation, according to an announcement, April 2, by Dr. George F. Lull, President of the Foundation. This expands the Board from 11 to 15 members. The physicians elected to the Board with Dr. Hussey were Dr. Lowell T. Coggeshall, President of the American Association of Medical Colleges, and two Past Presidents of the AMA, Dr. Dwight Murray, of Napa, California, and Dr. Walter B. Martin, of Norfolk, Virginia.

Drs. John C. Rose and Lawrence S. Lilienfield, both on the teaching staff of Georgetown University School of Medicine as Assistant Professors of Medicine, are charter members of the newly organized Bio-Physical Society.

Dr. Rose was elected Vice Chairman of the Southern Section of the American Federation for Clinical Research, which met in New Orleans in January.

Dr. Lilienfield, whose promotion to Assistant Professor of Medicine was announced in March, will continue his research in the field of reno-hemodynamics under a new $21,000 grant from the National Heart Institute.

Two members of the Medical Society have recently been added to the editorial staff of medical journals. **Dr. I. Phillips Frohman** is General Editorial Consultant to the *Current Medical Digest*, beginning with the March 1958 issue. For several years he has been one of the more active contributing editors to the *Digest*, a Williams & Wilkins publication.

Dr. Edward D. Freis, an Associate member of the Medical Society, is now Associate Editor of the *Heart Bulletin* of the American Heart Association.

Dr. R. Frank Jones, Chief of the Urology Division, Howard University School of Medicine, was honored at the YMCA's 105th Anniversary dinner, held at the National Press Club, March 19. Dr. Jones was selected by the Twelfth Streeth Branch of the YMCA as last year's outstanding community worker.

Dr. Stafford W. Hawken was reappointed Chief of the Medical Staff of Columbia Hospital for Women at the annual meeting of the Board of Directors, March 19. **Dr. H. J. Russell McNitt** was reappointed Deputy Chief of Staff. Dr. Hawken is also Chief of Gynecological Service at Columbia.

On March 26 Georgetown University honored 11 faculty members who have completed 20 years' service to the University. The occasion was the Annual Founders Day Convocation, held in the McDonough Memorial Gymnasium. Among the recipients were four members of the District Medical Society. **Dr. Robert J. Coffey,** Professor and Director of the Department of Surgery, received a gold medal for full-time service. The silver medal for part-time service was presented to **Dr. Gerald H. McAteer**, Clinical Assistant Professor of Surgery; **Dr. J. Lawn Thompson, Jr.,** Clinical Associate Professor of Medicine; **and Dr. T. Frasier Williams,** Clinical Associate Professor of Otorhinolaryngology.

Dr. William E. Reefe was instrumental in the establishment of a Rheumatology Service for the Georgetown Medical Division at D. C. General Hospital. Dr. Reefe is co-director of the Clinic with Dr. Roger Slack.

Dr. James E. Moss, President-elect of the Alexandria Medical Society, has been elected to the Executive Committee of the Virginia Society of Internists. This is a newly formed organization of internists in the State of Virginia.

Dr. Laurence A. Kyle has been promoted from Associate to full Professor of Medicine at Georgetown University School of Medicine.

Dr. George E. Schreiner is the new Chairman of the Scientific Council of the Washington Heart Association.

Dr. James E. Fitzgerald was elected to membership on the M.E.N.D. Program, Subcommittee of the American Association of Medical Colleges, in February.

Dr. Bruce I. Shnider was named Co-chairman of the Eastern Coöperative Cancer Chemo-Therapy Study Group on February 25, 1958.

JOHN WILLIAM CRONIN, A.B., M.D., F.A.C.S.

(1905–1958)

Dr. John W. Cronin, Assistant Surgeon General of the United States Public Health Service, and Chief of the Bureau of Medical Services, died suddenly, March 26, 1958, in an ambulance en route to Casualty Hospital from his office.

Dr. Cronin was born, June 15, 1905, in Springfield, Ohio. He graduated from Miami University at Oxford, Ohio, in 1928. He received two degrees in medicine, M.B. (1932) and M.D. (1933), from the University of Cinncinnati, College of Medicine. In 1932 he interned at the U. S. Marine Hospital at Staten Island, New York.

Dr. Cronin was commissioned in the Regular Corps of the Public Health Service in 1935, and first assigned to the Federal Penitentiary at Lewisburg, Pa. From that time on he held posts in various cities of the United States, several of them, assignments to penal institutions. He came to Washington in 1944 as Senior Surgeon, and in 1949 was appointed Chief of the Division of Hospital and Medical Facilities. In 1956 he was appointed to the post he held at the time of his death.

Dr. Cronin was responsible for Public Health Service hospitals, nursing and dental resources, the medical services of the Coast Guard, Bureau of Prisons, and Bureau of Employees Compensation. He was also administrator of the Hill-Burton Hospital and medical facilities construction program.

He had published articles in many scientific journals on subjects including psychiatry, medical penology, occupational health, and hospital and health administration.

He was a Fellow of the American College of Surgeons, a member of the Industrial Medical Association, the Southern Medical Association, and the Association of Military Surgeons of the United States. He was elected to Associate membership in the District Medical Society in 1945.

Surviving him are his wife, Mrs. Virginia Cronin, and two children, Virginia May and John William, Jr., living at 5528 Trent Street, Chevy Chase, Md.

In a letter to the Editor of *The Washington Post and Times Herald*, published, April 8, James V. Bennett, Director of the U. S. Bureau of Prisons, paid "public tribute to the physician and the man." Excerpts of Mr. Bennett's letter follow:

". . . Few men have been blessed with his understanding, his wise although always practical sympathy. He dedicated his life without stint to those public health programs which were of greatest benefit to the largest number of people.

"He demonstrated bold imagination and great effectiveness in advancing such projects as the Hill-Burton Hospital Program and other progressive measures which helped to raise the health standards of the country as a whole. Thousands of sick people are receiving the benefit of modern hospital care because of the purposeful planning and determination of this dedicated physician."

Therapy of Paranoid Schizophrenic—Boverman

(*Continued from page 237*)

BIBLIOGRAPHY

1. Gonder, T. A.: Management of the paranoid schizophrenic with promazine; report of illustrative case. M. Ann. District of Columbia, 1957, **26**, 542.
2. Boverman, M.: Some notes on psychotherapy of delusional patients. Psychiatry, 1953, **16**, 139.

Biopsy of Intestinal Tract—Brick

(*Continued from page 241*)

oscopy to obtain liver biopsy material. However, in Europe and in South America peritoneoscopy still is widely used and is believed by the users to be more helpful and less dangerous than needle liver biopsy. In some places it is used as an outpatient procedure, something that I had never heard done in the United States. In addition to obtaining liver specimens, the gross appearance of the liver can be ascertained as well as the appearance of the peritoneum. The gallbladder and stomach can also be visualized as can the pelvic organs, and specimens can be taken not only from the liver but also from the peritoneum. In some hands it has been useful in the study of ascites of undetermined etiology. It may well be that peritoneoscopy deserves greater use in this country, since by this method much useful information can be obtained in cases of intra-abdominal disease of obscure etiology without the necessity for a formal exploratory laparotomy.

There will, of course, always remain cases in which none of these procedures will solve the problem. This is particularly true with reference to diseases of the pancreas, in which, when such disease is suspected, particularly cancer of the body and tail of the pancreas, exploratory laparotomy should be undertaken promptly. There are also cases in which abdominal symptoms persist and in which, although functional disease may be suspected clinically, exploratory laparotomy may be the only method to determine the diagnosis and future therapeutic course.

N. B. The author will gladly furnish specific references on any of the subjects discussed in this presentation.

Report of Executive Board

(*Continued from page 258*)

the time limit until the latter part of this week.

The Board has carefully considered the selection of Dr. Kiernan's successor and wishes to recommend the appointment of Dr. Ralph D. Whitley. It feels that Dr. Whitley is well qualified to fill this important post.

Respectfully submitted,
Herbert P. Ramsey, M.D., *Chairman*
Ralph M. Caulk, M.D.
W. LeRoy Dunn, M.D.
Raymond T. Holden, M.D.
Preston A. McLendon, M.D.
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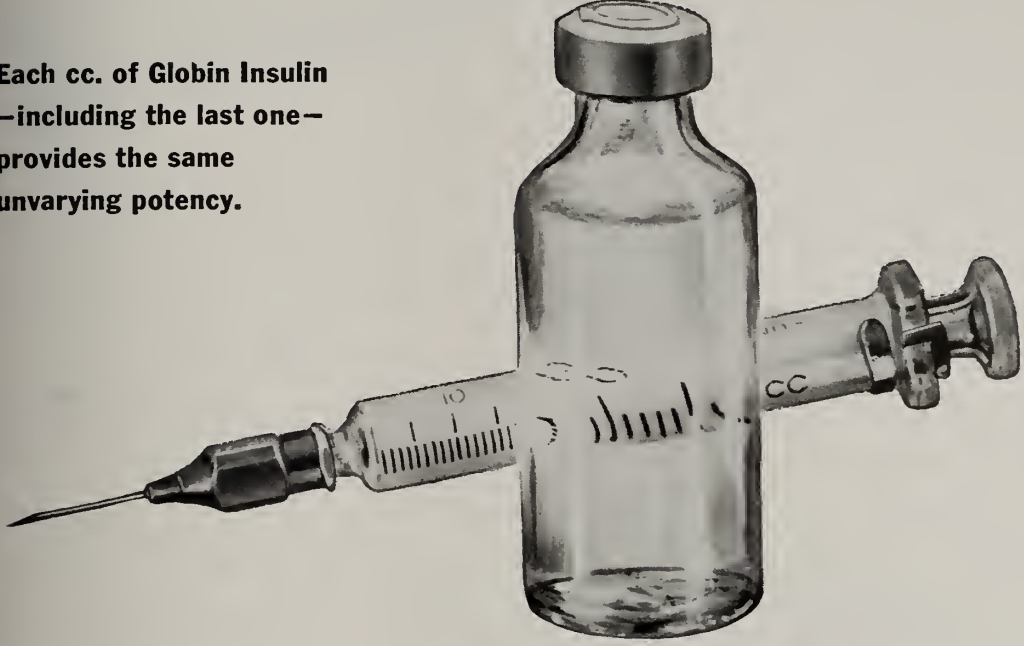

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Book Reviews

Mental Robots. L. A. ALESEN, M.D. Price, paper, $1.50. Pp. 107. Caldwell, Idaho: Caxton Printers, 1957.

Americans today, writes Lewis A. Alesen, are being deluged with a carefully planned and skillfully executed barrage designed to achieve adoption of a group of proposals by Federal, state, and local governments, classified under the broad, general, and disarmingly innocent title of "The Mental Health Program." In "Mental Robots," it is the author's purpose to analyze this mental health program. He claims to see beneath the surface of the sweeping charges of its proponents, and to inquire critically into the basic philosophy motivating these proposals. He discovers a subversive hard-core sponsorship of these proposals, indicating a sinister pattern and effect upon the citizen's rights and liberties if adopted. There is fear of the development of "a grand international Welfare-Police-Slave State."

The author seems eminently qualified; he served as President of the California Medical Association and Chief of Staff of the Los Angeles County General Hospital. He is unusually well read in psychology, sociology, history, economics, politics and, especially, law. However, it would seem he has an axe to grind for reasons that do not become apparent. There is a tendency to wander far afield, with disparaging criticism of subjects from modern art to fluoridation of water, from "the age-old fallacy of free trade" to the unreasonableness of the income tax. It is difficult to see what purpose is served by reading this book, or what realistic goal the author hopes to achieve.

LEONARD M. DUB, M.D.

Introduction to Anesthesia—The Principles of Safe Practice. ROBERT D. DRIPPS, M.D., JAMES E. ECKENHOFF, M.D., AND LEROY D. VANDAM, M.D. Line drawings by Leroy D. Vandam, M.D. Price, $4.75. Pp. 266. Philadelphia: Saunders, 1957.

The teaching of anesthesiology presents an interesting challenge to everyone engaged in this field. The wide variety of subject material encompassed within it and the increasing demand for consultations by other physicians make it mandatory that the present-day anesthesiologist be well grounded in the related basic and clinical sciences. This neatly printed and logically divided book by the 2 senior members of the Department of Anesthesiology, Hospital of the University of Pennsylvania, and the present Director of Anesthesia at the Peter Bent Brigham Hospital in Boston constitutes a fair try in this direction. As third lineal descendant of an enlarging manual circulated since 1949 in Pennsylvania's University Hospital and designed as a "first reader" for the beginning student of anesthesia, the book blows both hot and cold in its textual content, but is distinguished by the well planned and nicely executed line-drawings of Dr. Vandam.

The book is divided into five sections: The Preanesthetic Period, The Day of Anesthesia, During Operation, The Postoperative Period, and Special Topics. Apportioned within this framework are 34 chapters containing discussion and appraisal of a limited group of agents and technics commonly used in anesthesia. Intentionally omitted are such advanced and quite modern technics as pain management, hypothermia, deliberate hypotension, and regional anesthesia, for these are considered by the authors as comprising advanced study beyond the scope of the student for whom this book is intended. Presumably the subjects of fluid and electrolyte balance, new drugs, mechanisms of hypoxia, and methods of resuscitation are also considered by the authors to be in an area too shadowy for the beginner. However, the role of the encephalograph and the danger of harm from oxygen are well treated. Topics in the shadowy area that are properly considered in a fundamental anesthesia book include: A Philosopy of Anesthetic Records, Surgeon-Anesthetist Relationships, Inhalation Therapy, Management of Narcotic Poisoning, and Infant Resuscitation.

A critique of this book presents quite a dilemma to the reviewer. Somehow we get the impression that the publisher was in a hurry to get the book into print. If so, these distinguished authors were deprived of the time necessary to blend their lecture notes and published papers into a cohesive work, which might have given the beginning student of this specialty a completely useful and stimulating book. Anesthesiology still awaits its first textbook. This is not it.

JOEL B. HOBERMAN, M.D.

The Function of the Ureter and Renal Pelvis. Pressure Recordings and Radiographic Studies of the Normal and Diseased Upper Urinary Tract of Man. From the Institute for Experimental Medical Research, University of Oslo, and Dept. III, Ullevål Hospital, Oslo, Norway. FREDRIK KIIL, M.D. Price, $7.50. Pp. 205, illustrated. Philadelphia: Saunders, 1957.

This very original study represents a report of experiments conducted by the author in the Institute for Experimental Medicine, University of Oslo, Norway, from 1953 to 1955. The author takes note of the paucity of precise physiologic data concerning the upper urinary tract. He has an excellent but unnecessarily abbreviated review of the methods which have been most widely used to study the action of ureters and pelvis. They are: (1) recording the activity of an isolated ureter, (2) dye excre-

(*Continued on page 42*)

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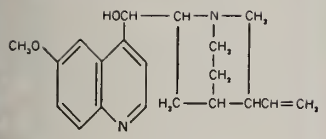
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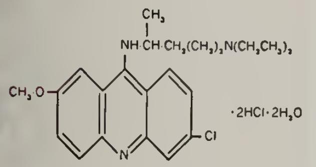
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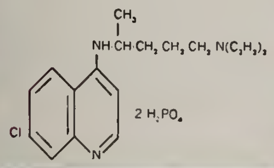
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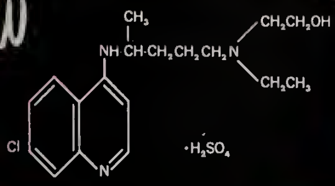
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Atabrine (brand of quinacrine), Aralen (brand of chloroqu
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(*Continued from page 40*)

tion during cystoscopy, (3) the ureteral muscle action potential, (4) radiographic methods including cineradiography and urokymography, and (5) various monometric devices for the recording of pressure changes. The author then attempts a critical evaluation of his own method, called "urometry," which is essentially the application of pressure transducers of the type widely used in cardiovascular research laboratories studying intra-arterial or intracardiac pressures. These phasic pressure recordings are used to study the characteristics of the ureteral contraction wave, and its changes with varied urine flow, micturition, increased intravesical pressure, ureteral dilatation and obstruction, the use of autonomic drugs and various pathologic conditions. Of practical interest are Dr. Kiil's efforts to study the physiologic ureteral dilatation which occurs in 95 per cent of pregnant women after the fifth month of gestation. His data would tend to deëmphasize the hormonal "atony" theory in favor of simple mechanical obstruction.

The book is somewhat technical for the practicing physician. However, the text portions are simply and concisely written. On the whole, it is a worthwhile and original contribution to the study of some poorly accessible, and hence poorly understood, portions of the genitourinary tract.

George E. Schreiner, M.D.

Aids to Ophthalmology, 11th ed. P. McG. Moffatt, M.D. (Lond.), M.R.C.P., F.R.C.S. (Eng.), D.O.M.S. Price, $3.00. Pp. 282. London: Baillière, Tindall and Cox, 1957; Baltimore: Williams & Wilkins, exclusive U. S. agents.

"Aids to Ophthalmology" is the eleventh edition (1957), revised by P. McG. Moffatt, of a small volume for students, first published in 1908. It is one of the Students' Aids Series, begun in 1876.

The volume suffers from the defects of a revised edition in that archaic illustrations, terminology, and treatments persist, despite the editor's efforts.

The value of a section on surgical technics is questionable, since the persons likely to use this work are the last ones who should consider performing ophthalmic surgery.

It does, however, contain in compact form a great deal of information useful to students and general practitioners.

Robert Day, M.D.

Veterinary Pathology. Hilton Atmore Smith, D.V.M., M.S., Ph.D., and Thomas Carlyle Jones, B.S., D.V.M. Price, $17.50. Pp. 959, with 661 illustrations on 262 figures and a color plate. Philadelphia: Lea & Febiger, 1957.

The authors, both of whom are well known authorities in the field of animal pathology, have prepared this new book primarily to serve as a text for students of veterinary medicine. The scope of the subject matter presented is enormous. Diseases of cattle, horses, sheep, swine, dogs, cats, poultry, and occasionally other animals are considered. Obviously no one volume can cover in full detail all the diseases of these widely differing species. Nevertheless the work is eminently worthwhile.

The chapter headings correspond to those found in most textbooks of human pathology: Disturbances of Circulation; Inflammation; Neoplasia; Diseases Due to Simple Bacteria; the Respiratory System, etc. The subject matter of the chapter is then subdivided so as to present the differing manifestations in the various species. The bibliography at the end of each chapter is separated into appropriate categories for convenient use. The references are cited in detail and most of them pertain to recent issues of English language journals.

Many of the chapters are of interest to human pathologists. The section on Diseases Due to Extraneous Poisons contains many ideas which may be developed to explain human diseases. The chapters on protozoan and helminthic diseases reveal the amazing complexity of these problems in the animal kingdom.

The manner of presentation of the data is particularly praiseworthy. The illustrations are of high quality, well chosen and beautifully reproduced. The text has a forthright, pleasing style, is easy to read and understand, and is spiced with frequent similes and witticisms. The senior author, a Texan, reveals his colors from time to time, as in the reference to "the sun-drenched Southwest" as compared to "the more somber parts of the United States."

This book is certain to find a place in the literature of both veterinary and human medicine.

Thomas M. Peery, M.D.

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SYMPOSIUM ON CANCER OF THE BREAST*

MARVIN A. SCHNEIDERMAN
Bethesda, Maryland
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COLONEL HARRY L. BERMAN, M.C., U.S.A.
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EPIDEMIOLOGY OF CARCINOMA OF THE BREAST

MARVIN A. SCHNEIDERMAN
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This paper, despite the title, deals only slightly with the "Epidemiology of Carcinoma of the Breast." It does not attempt to cover the subject fully, and it is no substitute for the extensive studies already published.[1-9] Instead, I have attempted to sketch how epidemiology might be used as a tool of research; how it can be used to explore some limited hypotheses, and how data derived from epidemiologic studies fit into the general patterns of scientific evidence and proof. The paper concludes with a discussion of different classes of evidence and their relation to "proof." These remarks might be kept in mind when assessing the usefulness or suitability of surgery, radiation therapy, and chemotherapy, as given in the following papers of this symposium.

As examples, two hypotheses which have come under some discussion in the literature may be quickly examined and another alluded to. These three are:

1. Breast cancer is very largely a disease of hormonal origin. (A corollary, which is not considered here, is that it should, therefore, be largely controllable by hormonal means.)

2. Early diagnosis is of only minor consequence, because the disease is essentially not curable by present means.

3. Radiation in the treatment of breast cancer is probably harmful.

Tables 1, 2, and 3 and figures 1 and 2 relate to the first hypothesis, that of hormonal origin. Figure 3 relates to early diagnosis and curability.

---

* Presented at the District of Columbia General Hospital, October 10, 1957, under the sponsorship of the Tumor Committee of the Hospital and the American Cancer Society, District of Columbia Division, Inc.

Table 4 concerns itself with possible effects of radiation.

TABLE 1

Cancer of the Breast in Ten Areas of the United States, 1947–1948

	New Cases		Rates* per 100,000	
	White		Nonwhite	
	Males	Females	Males	Females
Left	0.3	28.2	0.1	16.0
Right	0.2	26.2	0	14.4
Unspecified	0.3	22.2	0.1	12.5
Total†	0.8	72.6	0.2	53.9

*Crude †Age adjusted

Consider the arguments relating to hormonal origin. Certain facts are clearly obvious:

Breast cancer is almost exclusively a disease of women.[1] This could be "hormonal" or it could mean that women have more suitable tissue available for "attack." It would appear that we would have to look within women for evidence of hormonal origin.

The incidence is higher in single women than in married women (table 2*[2] and figure 1[1]).

TABLE 2

Cancer of the Breast and Marital Status in Australia, 1919–1923

Age Standardized Death Rates (per 100,000)

Site	Never Married	Married	
		Childless	With Children
Breast	40	34	24

This appears to be evidence of hormonal differences, marrying and having children somehow changing the hormonal substratum. On the other hand, it might be argued that there is some genotypic force (which, of course, could also be hormonal in nature) that causes self-selection among women, so that those who are likely to develop breast cancer are somehow less likely to marry. It would be hard to use this argument, however, to explain why the death rate from breast cancer for married women who have never had children is higher than for those married women who have had children.

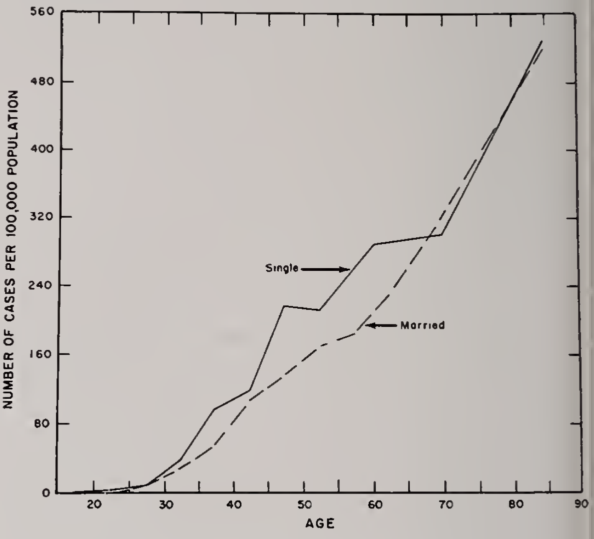

FIG. 1. Incidence rates (new cases) of cancer of the breast in white females in 10 cities of the United States, 1947–1948.

Japanese women who later developed breast cancer started menstruating earlier and married later than controls (table 3[3]). Age at menstruation is certainly hormonally related, but much work will have to be done to develop some one-to-one relationship with breast cancer.

TABLE 3

Cancer of the Breast in Japan

	Age at Onset of Menses		Age at Marriage	
	Cancer	Controls	Cancer	Controls
Urban	14.70	15.04	22.12	21.04
Rural	14.79	15.15	21.55	20.57

The incidence rates continue rising throughout life, but there is a change in the rate of increase at about the age of 50, approximately the time of the menopause (figures 1 and 2). The break is more obvious among single women than in married women. This phenomenon has been discussed by Clemmesen,[4] Huesby et al,[10] and Lilienfeld,[11] but no clear connection seems to have been drawn. Why the break should be more obvious in single women (of whom there are proportionately fewer—hence the data subject to more error) than in married women is equally unclear.

---

* Table 2 gives death rates, not incidence. The assumption implicit in using these data to support differences in "incidence" is that there are no differential death rates for single, married with no children, or married women with some children once they have had a diagnosis of cancer of the breast. I know of no published data concerning this. Perhaps it might be useful to attempt to develop separate decrement tables, by marital status and parity, of all cases of breast cancer diagnosed.

The incidence is higher among whites than among non-whites in the United States (table 1). This is true after adjustment is made for the different age distributions among whites and non-whites in the population. There is also evidence of much lower mortality rates among non-white races not in the United States. Segi[3] reports a crude death rate of 3.4 per 100,000 in Japanese women. The age-adjusted death rates (per 100,000) for 10 representative areas in the United States were 28.2 for whites and 23.1 for non-whites (1947–1948), 7 to 9 times the Japanese rates. I am not aware of any studies which have demonstrated clear racial differences in hormone profiles. This might be a fruitful area for some work. Perhaps, in view of Dorn's data[2] from Australia we should have made adjustments for relative parity, as well as for different age distributions.

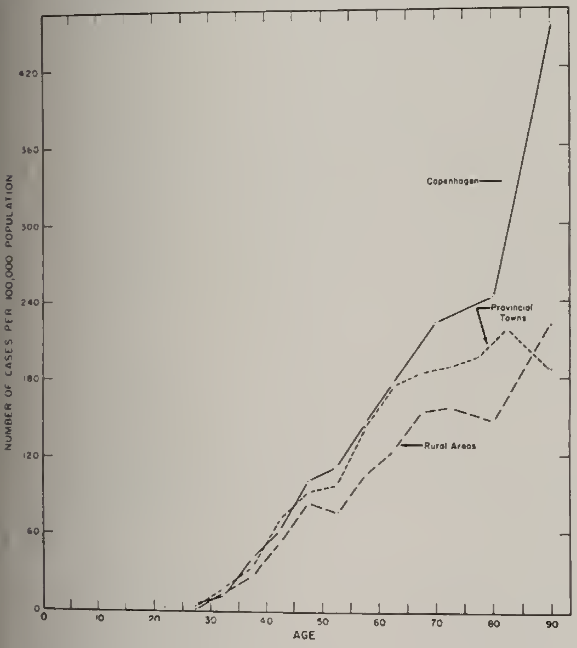

FIG. 2. Incidence rates (new cases) of cancer of the breast in females in Denmark, 1943–1947.

Incidence is higher in cities than in towns and in rural areas (at least in Denmark).[4] This might be hormonal, if there were more single women in cities, or if city women had fewer children. The Danish data show the same "menopausal" time breaks in the rates as the United States' data. However, the menopausal break is sharper in the rural areas than in the cities. This is the reverse of the data shown in figure 1, where the break was greatest in the group having the highest incidence rates. There is something of a contradiction here. The errors in some of these data may be fairly large.

Of course, if one interprets the "break" at about age 50 as a "menopausal" break, and hence hormonally related, what sort of explanation can be given for the age 70–75 "breaks"? Are these hormonally related, too? If so, how? These, too, may merely reflect the erratic nature of rates based on relatively small numbers of cases.

Finally, the left breast seems to be more at risk than the right breast (table 1). This is in keeping with a hormone hypothesis, if, in addition, one postulated some circulating hormones with a slightly richer (in volume?) blood supply to the left breast than to the right breast.

I do not know that this has been demonstrated.

Thus, the epidemiologic evidence for breast cancer being a disease of largely hormonal origin is not at all clear or complete. Certain useful facts are not today available, and some apparent contradictions exist. In total, it would appear that the evidence is weaker than one would have thought at first glance. There appears to be a fair amount of "circumstantial evidence," but even this is not solid. Perhaps we can say that hormones were present at the scene of the crime, but we cannot say unequivocally that they were the criminal(s).

Now, for the second hypothesis mentioned above, that early diagnosis is not of much consequence, and that the biology of the disease is the main determinant, Park and Lees[12] have asserted, "As a guess—and no better is possible—the influence of delay in treatment upon the curability cannot be greater than 5 to 10 per cent. . . . In other words, it has been demonstrated that the curability is not more than this; it may be less, and it may not exist at all." Kreyberg[13] has supported this position, but he still feels that early diagnosis is of a little help. McKinnon,[14] arguing from a different point of view, has been critical of case-finding programs, breast self-examination, etc. He points out that there has been little or no change in general breast cancer death rates, duration of survival, etc., in spite of extensive educational programs.

Making the assumption that early diagnosis and presentation are of consequence, McSwain and Coles[15] reported that in the past 30 years at the Vanderbilt University Hospital there has been a decrease in the proportion of breast cancer patients with axillary metastases, and an increase in the proportion of patients presenting themselves with benign tumors. These data could be a measure of increasing lay education, of improved medical care, higher economic status in Nashville, or perhaps just a shift in the kind of population served by Vanderbilt. In giving their short paper McSwain and Coles have done 2 things: 1. They have assumed as fact the answer for which McKinnon asserts there is no evidence. 2. They have not given any data which could be used to evaluate either their remarks or McKinnon's. Survival data collected over the same 30-year period might tell whether the changes in the kind of case coming to Vanderbilt were of consequence. If there has not been a change for the better in survival, these data would lend strong support to the conclusions of Park and Lees.

Not all data support Park and Lees, however. Table 1 gives as the age-adjusted incidence rates for a 1-year period, 72.6 and 53.9 per 100,000 for white and non-white women, respectively. For the same area and for the same year, the comparable death rates were 28.2 and 23.1. Disregarding the short-term (less than 15 years) time lags, shifts in the age of the population, changes in competing causes of death, etc., all of which are probably minor, we are left with the need to explain what happened to the difference. If these women who had cancer did not die of cancer (almost ⅔ of them) what did they die of? Were they not cured? (Death reporting in the United States is such that if they died with cancer, this should have been reported.) Such a study is now being conducted by Harold Dorn.[1] His examination of death certificates of cases reported in the studies in the 10 metropolitan areas in the United States should lead to some further knowledge of "curability."

There is some confusion here, however, between absolute curability of all cases and the effectiveness of early diagnosis. It is difficult to sort out the arguments, because the literature has the same words meaning different things.

There is one other piece of epidemiologic data from Cutler et al[16] worth noting. It is given schematically in figure 3.

If breast cancer is cured by present treatments, the survival experience of the cancer patients, after a period of time, should be the same as for other women (of the same age) who have not had cancer. Whether this has been achieved is shown in figure 3. The patients who had localized disease eventually seem to have achieved a survival status close to (but not quite up to) that of the general population. Those who had more advanced disease at diagnosis did not, as a group, achieve this state of health. That even the "localized" patients never quite reached the survival status equivalent to that of the general population lends support to the argument that breast cancer, even in its earliest stages, has added components of mortality (i.e., it is not really fully "curable").

Recently Heller, Cutler, and Haenszel[5] reported that in the 10 years from 1937 to 1947 there had been an increase of 11 per cent in the incidence (new cases) of cancer of the breast with a slightly smaller increase (9 per cent) in mortality. This is a very small change, but if it is real it may help to give some of the evidence that McKinnon is seeking.

The evidence on "curability," or at least the value of early diagnosis, is at least as incomplete as the evidence on the hormonal origin. The surgeon who performs a radical mastectomy is convinced that his patient has a better chance for survival than she had before surgery. On the other hand, he has, in his experience, many cases who did not progress in the manner that he privately predicted. For the present, in the absence of evidence clearly demonstrating harm to patients through the currently accepted modes of treatment, we can expect physicians to behave in the immediate future just as they are behaving today. Epidemiology in this area may tell us more about the nature of the disease in general, but this probably will take a long time to influence the treatment of any single patient.

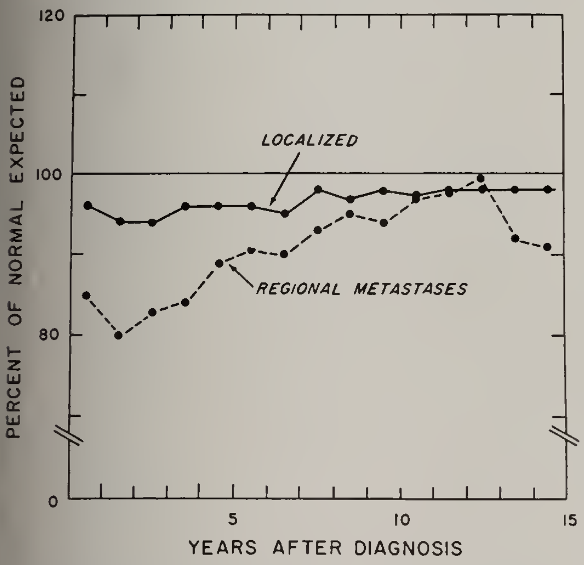

FIG. 3. Survival of breast cancer patients as a ratio of expected survival in a population of the same age, by stage at diagnosis.

The last item on my short list of hypotheses is that radiation is probably harmful in the treatment of breast cancer. Table 4 bears on this point. The proportion of patients surviving* 5 years after treatment with surgery alone was greater than that of patients treated with both surgery and radiation; *ergo*, radiation is harmful. Of course, this is a "red herring." People acquainted with this disease will immediately argue that we cannot validly assume that the patients receiving radiation were really the same in all other respects as those who did not get radiotherapy. This argument is probably valid. It is one to keep in mind when one sees comparisons of Dr. A's series in Hospital Z in year 1 with Dr. B's series in Hospital Y in year 2. It is highly unlikely that they are comparable.

TABLE 4

Survival of Breast Cancer Patients by Treatment during First Course of Medical Care (1935–1951)

Extent at Time of Diagnosis	Survival	Surgery Alone Per cent Alive	Surgery + Radiation Per cent Alive
Localized	1 yr.	94.9	93.8
	5 yrs.	69.1	62.7
Regional	1 yr.	84.6	85.5
	5 yrs.	38.1	36.6

This leads to the point of this whole discussion, hard-to-evaluate data, easy-to-evaluate data, and "proof." Proof exists only in the deductive sense, usually in mathematics, proceeding from fixed postulates through a deductive logical process to a "proof," Q.E.D. Conviction is not "proof." When I say a case has been "proved" in the non-mathematical sense, I am merely saying something about my complicated state of mind. What I mean is that I am convinced. This is a personal phenomenon and doesn't mean that you must be convinced, too. Perhaps it takes more to "prove" things to you than it does to me, or perhaps less, or perhaps just different things bear different weight with different people. In the inductive sphere, generalizing to a larger universe from results in a smaller universe, we can never have proof in the mathematical sense. We can have:

---

* I prefer "survival" to "alive, free of disease" because survival is more easily and more accurately ascertained. There is little argument about whether a person is alive or dead. There can be considerable argument whether a person is free of disease or not. The accuracy of the answer to the latter question depends on the quality of medical care, when the patient was last medically examined, etc.

Evidence: This is hard-to-evaluate data.

Probability: This is easier-to-evaluate data.

I think the material given here shows that epidemiologic data are in the "evidence" class. So are Dr. A's results, and Dr. B's. Almost all the data we have in medicine are in this class. How much weight one should give to a piece of evidence is not objectively measurable. It depends on the individual, his training, his background, his prejudices. It is not surprising, then, to find so much unresolved controversy in medicine.

Is it possible to resolve some of this controversy? I should like to suggest that it is possible to resolve some. What we need are procedures which will allow us to evaluate the uncertainty of our evidence, to move it from the evidence class to the probability class. We need to know the correct amount of uncertainty to attach to the conclusions we draw from our data. It should be possible to do this in medicine as well as we are able to do it in other fields of biological research. Probability statements, with a fixed statement of the strength of the probability, i.e., how much weight we should give to the conclusions we draw, can be made only from properly designed and adequately carried out experiments. Unfortunately in this area, breast cancer, I have seen only 2 papers reporting experiments in which patients were randomly assigned to compared treatments, and the 2 treatments compared concurrently. Random assignment is essential to preparing valid probability statements.

In an area in which there is so much controversy it should be clear that some of us, at least, have not yet convinced our colleagues of the virtue of our views. Of course, the horrible possibility exists that we may be wrong, and our colleagues right, and that their unreasonable obduracy has a valid basis. Under such circumstances we (and they) should be willing to submit our ideas to test. We should be willing to conduct an experiment of which we both approve, in the hope that we might settle our differences.

BIBLIOGRAPHY

1. Dorn, H. F., and Cutler, S. J.: Pub. Health Monogr., 1955, **29**, 1.
2. Dorn, H. F.: Human Biol., 1943, **15**, 73.
3. Segi, M., and others: Epidemiologic study of cancer in Japan. Gann Jap. J. Cancer Research, Suppl., 1947, **48** (April).
4. Clemmesen, J., and Nielsen, A.: Age distribution figures for cancer in Danish towns and country. Acta Unio internat. contra cancrum, Louvain VIII Spec. A21 (1952).
5. Heller, J. R., Cutler, S. J., and Haenszel, W. M.: J.A.M.A., 1955, **159**, 1628.
6. Steiner, P. E.: Cancer: Race and Geography. Some Etiological, Environmental, Ethnological, Epidemiological, and Statistical Aspects in Caucasoids, Mongoloids, Negroids, and Mexicans. Baltimore: Williams & Wilkins, 1954.
7. Griswold, M. H., Wilder, C. S., Cutler, S. J., and Pollack, E. S.: Cancer in Connecticut. Conn. State Dept. of Health, 1955.
8. Logan, W. P. D.: Lancet, 1953, **2**, 1199.
9. Denoix, P. F., and Moine, M.: Bull. Inst. Nat. d'Hyg. (Paris), 1951, **6**, 585.
10. Anderson, E. (Minneapolis), Reed, S. C., Huseby, R. A., and Oliver, C. P.: Cancer, 1950, **3**, 410.
11. Lilienfeld, A. M.: Ibid., 1956, **9**, 927.
12. Park, W. W., and Lees, J. C.: Surg., Gynec. & Obst., 1951, **93**, 129.
13. Kreyberg, L.: Brit. J. Cancer, 1953, **7**, 157.
14. McKinnon, N. E.: Surg., Gynec. & Obst., 1952, **94**, 173.
15. McSwain, B., and Coles, J. H.: Cancer, 1957, **10**, 469.
16. Cutler, S. J., Griswold, M. H., and Eisenberg, H.: J. Nat. Cancer Inst., 1957, **19**, 1107.

ADDITIONAL REFERENCES

Crile, G., Jr.: Surg., Gynec. & Obst., 1955, **100**, 755.

Dorn, H. F.: Am. J. Pub. Health, 1955, **45**, 615.

Hopkins, C. E.: West. J. Surg., 1953, **61**, 149.

Lees, T. W.: Assessing the curability of cancer. Acta radiol., Stockh. Suppl. 132, 1956, pp. 1–54.

Messenger, H. B.: Continuing program of treatment comparisons in breast cancer. Unpublished thesis, University of California (Berkeley), 1957.

Small, R. G., and Dutton, A. M.: J.A.M.A., 1955, **157**, 216.

Smithers, D. W., Rigby-Jones, P., Galton, D. A. G., and Payne, P. M.: Cancer of the breast; a review. Brit. J. Radiol. (suppl. 4), 1952, pp. i-xiii; 1–90.

SURGICAL ASPECTS OF CARCINOMA OF THE BREAST

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Modern surgical treatment of cancer of the breast dates back to Halsted's detailed description[1] of his "complete" operation and Willy Meyer's "improved method"[2] in 1894. Prior to the Halsted and Meyer era the results of the surgical treatment of cancer of the breast were so unfavorable that it led Haynes Agnew to state in his lecture that "he operated on breast cancers solely for the moral effect on the patients, that he believed the operation shortened rather than prolonged life." [1] The results obtained by Billroth, Volkmann, Bergmann, and others, who were the outstanding surgeons of Halsted's day, were certainly discouraging.[1] The report by Billroth of less than a 5 per cent 3-year survival rate and an 85 per cent local recurrence rate was indeed a gloomy one.[1]

The startling innovation of Halsted's operation lay in the removal of the breast with its lesion and a wide area of skin, both pectoral muscles, and all the axillary contents in one piece. His report of only 6 per cent local recurrence attested to the efficacy of his operation performed on 50 cases from 1889 to 1894. This led Halsted to say, "But now we can state positively that carcinoma of the breast is a curable disease if operated on properly and in time."

Natural History of the Disease

The surgical treatment of cancer of the breast is based on the classical concept that it begins as a focal disease. Later, after an unknown length of time, it becomes infiltrative, and then usually spreads to the regional lymph nodes, or by the blood stream to more distant sites. If that assumption is true, the corollary follows that the earlier the primary lesion is discovered and extirpated the greater the probability of cure.

But the term "early" is an indefinite one. The exact time of onset of carcinoma of the breast is impossible to determine. The time interval between the carcinoma in situ and the infiltrative stage is unknown. Also, how long it takes for local disease to involve the regional nodes or spread to distant sites is again not definite. There is no standard pattern to the progression of the disease.

The size of the lump may be considered a function of the duration of the disease. In his study of some 1,300 cases, Stewart[3] found that the ratio of positive axillary nodes to negative axillary nodes rose sharply with the size of the primary lesion. He also found that 5- and 10-year survival rates were much greater in those with primary lesions less than 2 cm. in diameter. Yet this is only true for the group. Every experienced surgeon knows that the lesion may be impossible to detect clinically, and yet the patient may already present regional node involvement or even distant metastases. The reverse is also true. Many lesions may be quite large and of relatively long standing and still be limited to the breast with no regional involvement (see figures 1–4). In its absolute sense, "early" can refer only to the accidental cancer found by the pathologist in tissue removed for apparently benign disease.

Delay and Its Relation to Survival

Park and Lees,[4] in a philosophical review of the subject, conclude that the fate of the patient with cancer of the breast is predestined and that treatment, if at all effective, does not increase the 5-year survival rate by more than 5 to 10 per cent. Gilliam,[5] in a study of their figures, questions the validity of their conclusions. Wade has collected reports of untreated patients and found the average survival to be 38 to 40 months.[6] Interestingly enough, 20 per cent of these patients were still alive after 5 years. Shimkin and his co-workers,[7] in studies of patients treated by radical mastectomy, found that there were twice as many 5-year survivals in the treated group as compared to the untreated group, and 5 to 6 times more after 10 years. They conclude "that the data presented here clearly show that delay in treatment has a definite effect upon survival in cancer of the breast, and that the present methods of treatment do produce considerable salvage of women with mammary carcinoma."

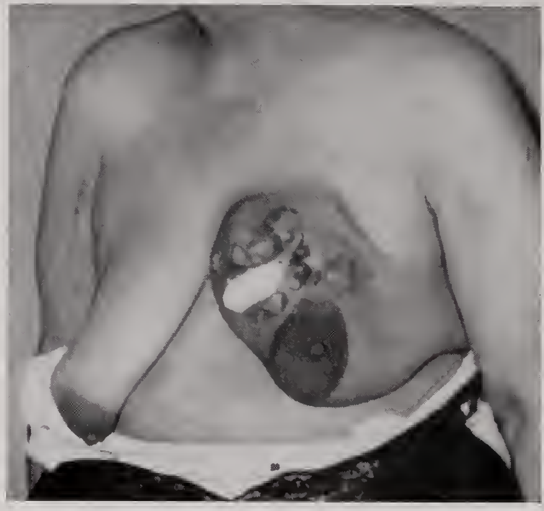

FIG. 1. Ulcerated infiltrating duct carcinoma of left breast of 11 years' duration in a 75-year-old woman; treated by simple mastectomy; living without evidence of recurrence 1 year postoperatively and 12 years after onset.

MacDonald[6, 8, 9] in reviewing the figures of Wade and Shimkin et al is more impressed with the similarity of the pattern of survival. In both series the cases may be broken down into 3 groups. It will be found that in 55 per cent of the cases the outcome is rapidly fatal and in 20 per cent the lesion remains localized for a long time and metastasizes very slowly. The outcome of 75 per cent of the cases is thus predetermined before any treatment is begun. Although the level of survival is higher in the treated cases, the biologic potential of the disease is found to be of predominant importance. That leaves an intermediate group of 25 per cent in which the early institution of treatment can influence the outcome. It is his contention that if this last group is treated at the very earliest possible time, together with the 20 per cent slowly growing group, it can at best give only a 45 per cent 10-year survival rate. This, he claims, is what the ablest surgeons in the various clinics report. Any deviation from this figure is not due to the type of treatment but rather to case selectivity.

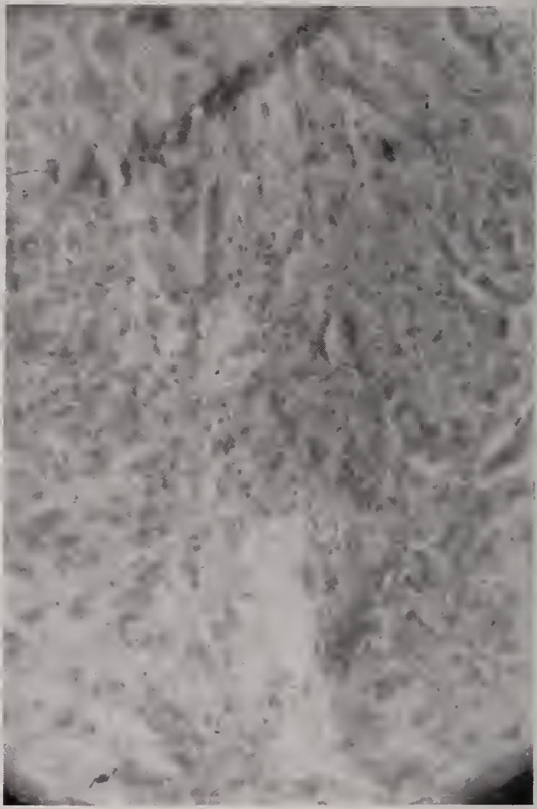

FIG. 2. Same case as in figure 1.

That women still disregard a lump in the breast can be seen from the figures of Taylor[10] (Massachusetts General Hospital), who reports 25 per cent of the cases to be clinically inoperable when they present themselves for treatment. And of those that are operable, 60 per cent already have regional node involvement. Shimkin et al,[7] in studying the importance of delay to the survival rate, state that if women would delay less than 1 month after discovery of a lump their report of a 40 per cent 5-year survival rate would have been 60 per cent.

More recently Berkson and his co-workers[11] reviewed the experience in the Mayo Clinic with radical mastectomy in over 9,600 cases from 1910 to 1954. They observed that with passing time there has been a decrease in the proportion of patients with axillary metastases at the time of operation. From 1910 to 1934 two-thirds of the patients had axillary metastases, while in the period 1950–1954 only 48 per cent had axillary metastases at the time of operation. Even more striking was their finding that the 5-year survival rate for those with axillary metastases was also improved with passing time, but that there was no change in the survival rate in those without axillary metastases. They attribute this improvement to earlier recognition and earlier treatment rather than to improvement in technics of the operation. When one considers that they report an 83 per cent 5-year survival rate for those patients without axillary metastases compared to 92 per cent survival rate for a comparable normal group, it seems a pity that 50 per cent of patients do not come to the surgeon in so early a stage of cancer as to place them in this favorable group.

TREATMENT

Criteria of operability. In 1943 Haagensen and Stout[12] formulated certain clinical contraindications to radical mastectomy for carcinoma of the breast. Stated in a positive manner, it can be said that radical mastectomy may be undertaken if the lesion is localized to the breast and not fixed to the chest wall. The nodes in the axilla must not be large nor fixed to the deeper structures in the axilla. There must be no evidence of distant metastases after thorough search by physical examination and X-ray examination of the lungs and skeleton. Lactation and pregnancy are no longer considered as contraindications to radical surgery.

Portmann[13] has classified cancer of the breast, based on both clinical and pathologic evidences of anatomic extent of involvement, as follows:

Stage 1. The tumor is localized to the breast, and there are no skin or axillary node involvements or distant metastases.

Stage 2. The tumor is movable with no skin involvement and only a few axillary nodes involved and no distant metastases.

Stage 3. The tumor is fixed or diffusely infiltrating the breast. The skin is brawny, inflamed, or extensively ulcerated with multiple secondary nodules. The axillary nodes are extensively involved and some are fixed. There are no distant metastases clinically or shown by X-ray examination.

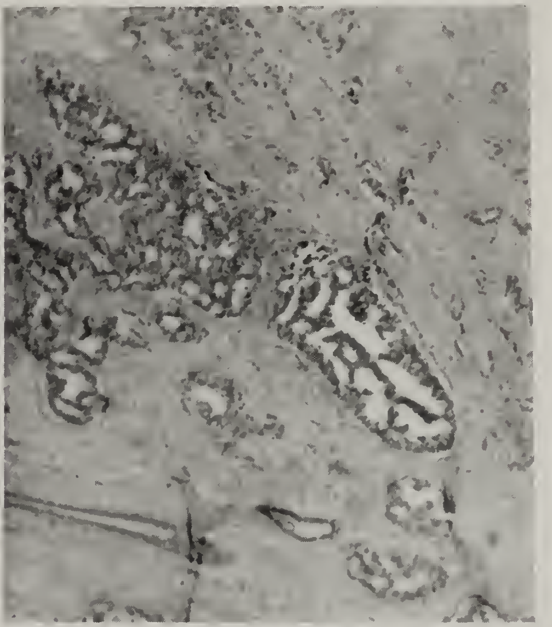

FIG. 3. Adenocarcinoma, grade II (1 cm. in diameter), of right breast, removed by local excision from a 50-year-old woman with metastases to the vertebrae who died 9 months later.

Stage 4. The tumor and the skin are involved as in the other 3 stages, but there is also evidence of remote metastases. Portmann considers stages 3 and 4 as incurable.

MacGuffie[14] has recently reported that currently Haagensen and the Delafield group have added the so-called "triple biopsy" as a preoperative diagnostic method. This includes removal of tissue from the primary tumor, all nodal tissue that can be removed from the first, second and third intercostal spaces, and from the node-bearing tissues removed from the apex of the axilla or supraclavicular region on the side of the primary lesion. Involvement of any of these is considered by them to be a contraindication to radical mastectomy.

Because of the discontent with the results of radical mastectomy in the treatment of carcinoma of the breast, some surgeons have attempted to improve them by going to opposite extremes. On the one hand are those such as Wangensteen,[15, 16, 17] Dahl-Iversen,[18] Margottini[19] and Urban[20] who have used ultraradical methods. On the other extreme are those[21, 22] who have followed McWhirter and have favored simple mastectomy and roentgenotherapy.[23]

The radical mastectomy as described by Halsted and Willy Meyer still remains the basis of all surgical attempts for cure of cancer of the breast. The 5-year cure rate of all operable cases averages from 51 to 52.5 per cent. If these are broken down into cases limited to the breast, the 5-year cure rate rises to as high as 85 per cent. In those with axillary metastases the 5-year cure rate is approximately 47.9 per cent. If done properly, the radical mastectomy should eradicate the disease locally. And yet even in the best of hands the local recurrence rate is 8 to 12 per cent. This in no way reflects on the thoroughness of the operation, but rather is an admission

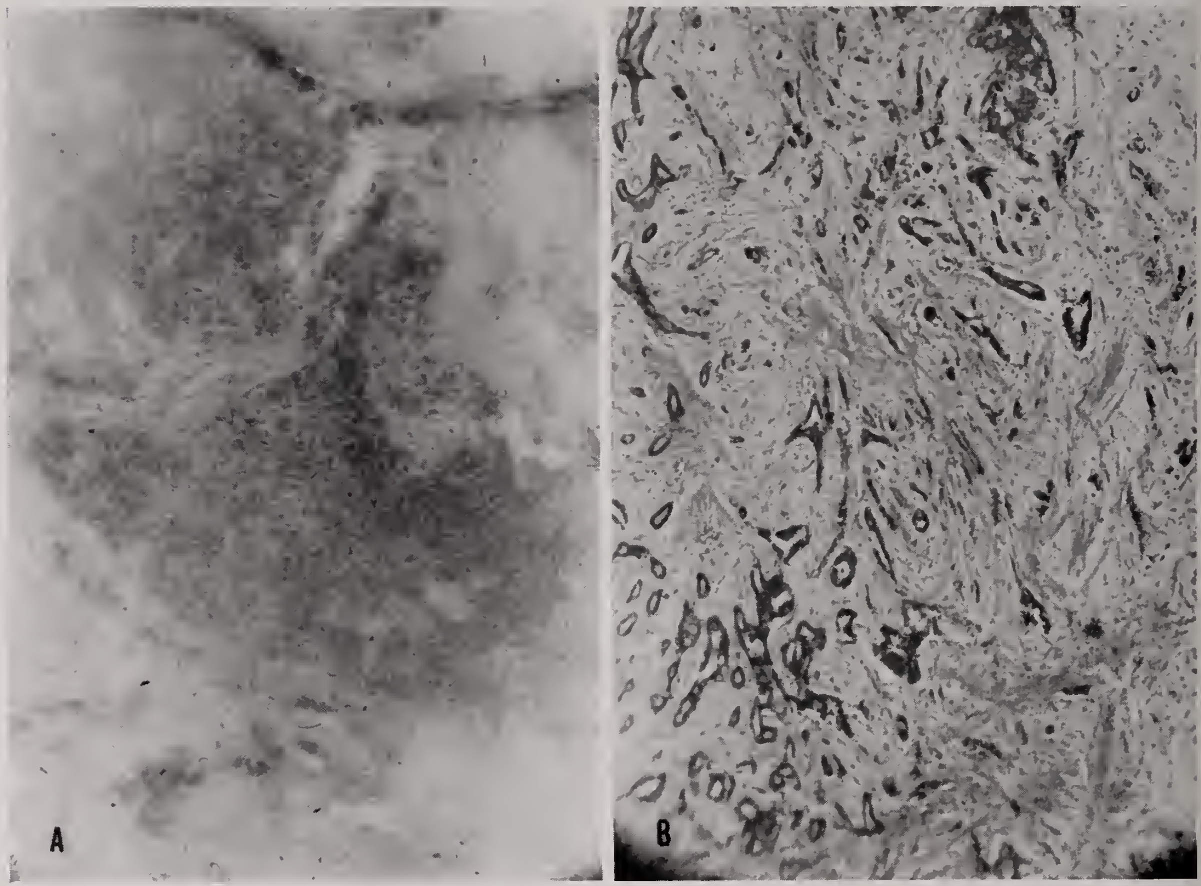

FIG. 4. (A) Co-existing adenocarcinoma, grade III of right breast, and (B) grade II of left breast, near the sternum in a 51-year-old woman; treated by radiotherapy; living, without evidence of recurrence, 7 years later.

that certain cases had skin involvement at the time of operation and should have been considered incurable.

Simple mastectomy has a place in certain cases. In the very old or for palliative purposes, and in the unusual case in which a carcinoma in situ has been discovered by accident, simple mastectomy is indicated.

As noted above, to further improve the results of radical mastectomy, the Presbyterian and Delafield groups have adopted the triple biopsy and have thus eliminated 25 to 30 per cent more from the operable group. Haagensen,[24, 25] by adopting the more rigid criteria of operability, has reported a 74.5 per cent 5-year cure rate for those cases with only 1 or 2 axillary nodes involved. He attributes some of the improvement to meticulous dissection, very thin skin flaps, and wide excision of skin necessitating a skin graft in each instance.

Others believe that the results of radical mastectomy can be improved by extending the operation. Wangensteen[17] has resected the clavicle and widely dissected the supraclavicular nodes. Margottini and Dahl-Iversen have, in addition, removed the internal mammary nodes. Urban[20] and his group have extended the operation still further by removing the chest wall en bloc with the internal mammary nodes and using a fascial graft to repair the defect. They claim a 14 per cent improvement in the 3-year cure rate and 8 per cent in the 5-year cure rate.

Recently some surgeons have been persuaded to abandon the radical mastectomy in favor of a simple mastectomy and radiotherapy. McWhirter of Edinburgh, Williams[22] and Garland[21] maintain that their 5-year survival rate is superior to results of the radical mastectomy. Ackerman[23] has reviewed the work of McWhirter and with others has found many objections to these claims. These objections may be stated as follows:

1. Many of the cases still harbor the disease. Figures of 5-year survival and 5-year cure rates are not comparable.
2. There were many ancillary treatments used, such as hormones, and removal of some of the axillary nodes.
3. There was a selection of patients, with elimination of the obese, the fair-haired and the red-headed, those with peripheral vascular disease, and those with incipient or arrested pulmonary disease.
4. The morbidity was quite high—2.4 per cent.
5. Although it is true that theoretically a simple mastectomy should cure the stage 1 cases of cancer of the breast, in reality it is impossible to know clinically when a case is in stage 1 or has axillary node involvement and should be in stage 2. The only sure method is by thorough dissection of all the nodes in the axilla, since it has been shown conclusively that the lower axillary nodes may be negative and the higher nodes or intermediary nodes positive.[26]
6. There is no proof that there is any destruction of the disease in the axillary nodes by radiotherapy. As Haagensen[25] has said, this treatment robbed those with axillary node involvement of a 47.5 per cent chance of a 5-year cure rate obtainable by radical mastectomy.
7. The most damaging finding was a 39 per cent local recurrence rate; this rate is at least 3 times that following radical mastectomy.
8. In a more direct comparison, the 5-year survival rate of almost identical groups of a large number of patients, Berkson and his Mayo Clinic collaborators[11] point out the distinct advantage of radical mastectomy over simple mastectomy and irradiation. This is shown in table 1.

DISCUSSION

Whether one accepts predeterminism or MacDonald's figures,[6, 8, 9] every surgeon will agree that some cancers grow rapidly and others slowly. Since it is impossible to determine clinically or even histologically to which category any particular cancer belongs, each should be treated aggressively and expeditiously.

Criteria for radical mastectomy should not be too rigid. The biopsy of the internal mammary nodes prior to radical mastectomy is not realistic. To subject 70 per cent of patients with negative internal mammary nodes to a 2- or 3-hour unnecessary operation to avoid a radical mastectomy on the 30 per cent who may have positive nodes is too great a penalty to pay. And even if the internal mammary nodes are positive, why deny these patients the best method yet designed for the removal of the disease locally, namely, the radical mastectomy?

TABLE 1

Comparison of Edinburgh and Mayo Clinic Experience

5-year Survival Rates

Experience	All Patients				Less than 65 Years			
	Total	Traced	Lived 5 years or more		Total	Traced	Lived 5 years or more	
			Number	Per cent			Number	Per cent
Edinburgh, policy of simple mastectomy with radiotherapy, 1941–1947*	1,609	1,609	774	48.1	1,179	1,179	604	51.2
Mayo Clinic, policy of radical mastectomy, 1941–1947	1,918	1,900	1,127	59.3	1,601	1,587	935	58.9
Mayo Clinic, policy of radical mastectomy, 1948–1950	788	777	499	64.2	621	613	402	65.6

* All patients less those with distant metastasis.

To flay a patient as some do and consume 5 or 6 more hours after spending 2 or 3 hours on the internal mammary node dissection is still more unrealistic. Certainly the results from some of the surgical clinics,[27] both as to local recurrence and cure rate, show the needlessness of skin-grafting in the vast majority of cases.

The extension of the operation to include the removal of the internal mammary nodes either by the methods of Wangensteen, Dahl-Iversen, and Margottini, or that of the still more radical method of including the chest wall by Urban, is illogical. To believe that the disease has stopped just at that level and has not gone further below the diaphragm, pleura or the opposite side through the rich intercommunicating network of these nodes is not rational. Despite the improvements of surgical technics, the increased morbidity and mortality of the extended operation, even in the hands of the more experienced surgeon, will militate against the rather small gains.

The claims of the group favoring simple mastectomy and irradiation have been adequately refuted by Ackerman and by the carefully documented analysis of the Mayo Clinic group. Haagensen is more vehement and cautions this group "to curb their enthusiasm and stick to facts, else they rob patients with operable breast carcinoma of their best chance of cure."

The only absolutely early case is the "surprise" cancer discovered by the pathologist. In order to obtain more of these, a closer scrutiny should be given those cases which appear borderline. A persistent thickening or grittiness of the breast, especially in the upper outer quadrant or tail, and more especially in one past 40, should have a wedge of this tissue removed for biopsy. Recurrent cysts after several previous biopsies should be an indication for the removal of all breast tissue through a submammary incision without removal of the nipple. There is growing evidence that these women run a much greater risk of developing carcinoma.[28] And what is more distressing is that often the carcinoma in these cases is obscured by the cystic disease or by the previous surgical procedures until its discovery is much too late.

Irradiation is excellent for palliation. After radical mastectomy, if there is fairly extensive involvement of the axillary nodes, irradiation may be used. Whether it improves the percentage of survival is questionable.

Surgical castration is advised in all women with functioning ovaries if there is any involvement of the axillary nodes. Newman[29] has found metastases to the ovaries in about 50 per cent of those with extensive metastases.

Adrenalectomy and hypophysectomy are still in the experimental stage.

It may be that the use of chemotherapy at the time of operation may be found useful in preventing the dissemination of viable cancer cells in the general circulation.

Surgery is not the ultimate answer to cancer of the breast, but until something more effective is found it gives the best chance the patient has for cure.[30] Certainly, as of now, the radical mastectomy, as Halsted said more than 60 years ago, "done properly and in time" is the best hope of the patient with cancer of the breast.

BIBLIOGRAPHY

1. Halsted, W. S.: Johns Hopkins Hosp. Rep., Balt., 1894–5, **4**, 297.
2. Meyer, W.: Med. Rec., N. Y., 1894, **46**, 746.
3. Stewart, F. W., in Proceedings of Third National Cancer Conference, held in Detroit, Mich., June 4–6, 1956. Philadelphia: Lippincott, 1957, pp. 62–73.
4. Park, W. W. and Lees, J. C.: Surg., Gynec. & Obst., 1951, **93**, 129.
5. Gilliam, A. G.: Ibid., 1952, **94**, 641.
6. MacDonald, I., in Proc. Third Nat. Cancer Conf.: See ref. 3, pp. 87–95.
7. Shimkin, M. B., Lucia, E. L., Stone, R. S., and Bell, H. G.: Surg., Gynec. & Obst., 1952, **94**, 645.
8. MacDonald, I.: Ibid., 1942, **74**, 75.
9. MacDonald, I. G.: Ibid., 1951, **92**, 443.
10. Taylor, G. W.: CA (Am. Cancer Soc.), 1954, **4**, 200.
11. Berkson, J., and others: Proc. Staff Meet. Mayo Clin., 1957, **32**, 645.
12. Haagensen, C. D., and Stout, A. P.: Ann. Surg., 1943, **118**, 859 and 1032.
13. Portmann, U. V.: J.A.M.A., 1950, 144, 513; correction, 1950, **144**, 701.
14. MacGuffie, M. M., in Proc. Third Nat. Cancer Conf.: See ref. 3, pp. 122–5.
15. Wangensteen, O. H., in discussion of Bell, H. G.: Ann. Surg., 1949, **130**, 310.
16. Wangensteen, O. H., in discussion of Taylor, G. W. (Boston). and Wallace, R. H.: Ibid., 1950, **132**, 833.
17. Wangensteen, O. H., in Proceedings of Second National Cancer Conference, held in Cincinnati, Ohio, March 3–5, 1952. New York: Am. Cancer Soc., 1954, pp. 230–41.
18. Dahl-Iversen, E., in Proc. Third Nat. Cancer Conf.: See ref. 3, pp. 148–56.
19. Margottini, M.: Ibid., p. 177.
20. Urban, J. A.: Ibid., pp. 159–68.
21. Garland, L. H.: Ibid., pp. 140–7
22. Williams, I. G.: Ibid., pp. 126–37.
23. Ackerman, L. V.: Cancer, 1955, **8**, 883.
24. Haagensen, C. D.: Carcinoma of the Breast, a monograph. New York: Am. Cancer Soc., 1950.
25. Haagensen, C. D., Garland, L. H., and Gellhorn, A.: Mod. Med., 1957, **25**, 110.
26. Davis, H. H., and Neis, D. D.: Ann. Surg., 1952, **136**, 604.
27. Marshall, S. F., and Hare, H. F.: Ibid., 1947, **125**, 688.
28. Cairncross, J. E., and Haagensen, C. D., in Proc. Third Nat. Cancer Conf.: See ref. 3, pp. 113–9.
29. Newman, W.: Personal communication.
30. Ackerman, L. V., in Proc. Third Nat. Cancer Conf.: See ref. 3, pp. 839–44.

CARCINOMA OF THE BREAST—RADIOLOGICAL ASPECTS

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The role of radiation therapy in the definitive management of cancer of the breast even at this late date remains somewhat of an enigma. Statistical analyses dealing with this subject are not easy to evaluate.

The place for irradiation in advanced stages of this disease as a useful palliative agent is well recognized, but under these circumstances its purpose is to make an uncomfortable, incurable state more tolerable for a patient rather than to interrupt the inexorable progression of her malignancy and contribute to her longevity. Not that this is not an important function of radiation therapy, but for the purposes of our discussion, since irradiation is commonly combined with a surgical procedure in the early definitive regimen, we need an answer to the question, "What does this modality do that helps to cure a patient with breast cancer?"

And so it is at a time when the tumor is presumably localized to an area in which it might be contained and when the objective of any form of treatment ought to be cure at best and at worst a prolongation of life beyond 40 months, the approximately average period of longevity which a patient may expect with no treatment, that one may rightfully inquire about the value of radiation therapy. I would be less than honest if I did not tell you that it is extremely difficult to determine accurately the indications for irradiation and to evaluate the overall effects of its administration. However, certain trends are becoming evident which may assist us in defining these indications and enable us to collect information of future value in settling some of these problems.

Few individuals would take exception to the notion that the cure of cancer of the breast is best accomplished surgically and that radiation therapy should play an auxiliary role. The popular surgical procedure, the radical mastectomy, has remained standardized for many years, although its limitations are perhaps not always kept in mind. The methods of administering X-ray therapy for cancer of the breast have been geared to this operation.

Those of us who are concerned with the early treatment of cancer of the breast—and now I refer especially to the surgeons and the radiologists—have recently sensed a disquieting degree of dissatisfaction with the orthodox surgical methods and perhaps also with those of the radiologist. Today there are diverse opinions as to the extent of surgery of the breast and by direct implication the methods of irradiation. These are some current points of view:

1. Radical mastectomy is a dependable, time-honored operation, well conceived and proven by experience. It is the best we have to offer a patient, possibly supplemented by postoperative irradiation.

2. Radical mastectomy followed by irradiation, which has been a common practice for many years, has not led progressively to improved results. Therefore, more extensive surgery should be done.

3. Radical mastectomy is unnecessary when the tumor is localized to the breast and fails when the disease involves the axillary nodes. Therefore, less extensive surgery should be done. The treatment should be simple mastectomy plus irradiation.

4. Radical mastectomy should be limited to especially selected early cases. No surgery should be done in categorically inoperable patients, who should receive radiation therapy.

5. It makes no difference what one does. Treatment has no effect on the outcome of breast cancer.

It is not my purpose to discuss in detail the various aspects of each of these contentions. I shall dismiss the last one concerning the dubious effectiveness of all treatment with the brief remark that the available evidence seems to point to the contrary; namely, that treatment of breast cancer has been effective. I have mentioned the other viewpoints because each in some way affects the actions of the radiologist.

In determining the indications for various methods of treatment for cancer of the breast, one must be concerned with the extent of the disease, or so-called clinical staging. There are several classifications, most of which generally categorize all patients in 4 groups:

Stage 1. Small tumor localized to the breast.

Stage 2. Tumor in the breast plus limited axillary metastases.

Stage 3. Extensive local and axillary spread.

Stage 4. Distant metastases.

The value of a classification lies in the fact that patients can be grouped according to certain patterns to provide a common basis for the evaluation of various forms of treatment.

Obviously, stages 1 and 2 might be considered in a general way as suitable for surgery, while stages 3 and 4 are not. Furthermore, the greatest number of survivals could be expected in stage 1 and a decrease in survivals anticipated as the stage number increased, so that we can see that classification has some prognostic value. In stage 1 a 5-year survival of 75 per cent is attainable, while in stage 2 this figure is about 30 per cent. In actual practice, clinical staging is not an exact procedure and errors are unavoidable. Haagensen[1] prefers the use of criteria of operability and of inoperability rather than the use of a classification.

Radiation therapy has been used in several ways in the definitive treatment:

1. Postoperatively after radical mastectomy.
2. Postoperatively after simple mastectomy.
3. Preoperatively before radical mastectomy.
4. Primarily as the only form of therapy.

In most centers today no postoperative X-ray therapy is administered in true stage 1 cases. This form of treatment is usually given when the axillary nodes are found to be involved or when local spread is such that persistence of tumor after radical mastectomy is suspected, in other words, stage 2 and possibly stage 3.

The manner in which this treatment is given is subject to wide variations, not always correlated with the nature of the tumor. Some radiologists treat only the axillary-supraclavicular nodes and the internal mammary chain. Others treat the affected anterior chest wall in addition, and in some places the mediastinum is also included. To some extent the total area treated is governed by the postoperative status of the anterior chest wall. Not uncommonly patients are referred for X-ray therapy with sloughing wounds in the operative site which contraindicate irradiation except perhaps in the marginal zones.

How effective is this type of irradiation? It is not very good, according to some qualified observers. Williams[2] in describing the experience of the St. Bartholomew's Hospital in London reported that postoperative radiotherapy increased in use from 18 to 60 per cent between 1930 and 1939 with no change in the 5-year survival rate, although the type of surgery remained unchanged. According to Haagensen,[3] sole reliance is placed on radical mastectomy without supplemental postoperative irradiation at the Presbyterian Hospital in New York, the Massachusetts General Hospital, and the Mayo Clinic, because it is thought that nothing has been gained by the use of this irradiation.

The use of preoperative irradiation is currently not very popular. An adequate tumor dose cannot be delivered without producing a severe reaction in the operative field. The time entailed in the delivery of the radiation and in the recovery from its effects results in a long, unjustifiable delay.

The combination of simple mastectomy and intensive postoperative irradiation was popularized by McWhirter,[4, 5] and nothing in recent years has aroused greater controversy and more intense feelings than has this method of treatment. Time is not available for me to go into the many interesting aspects, both pro and con, of the McWhirter technic. As already mentioned, it is based on the notions that radical mastectomy is unnecessary in stage 1 lesions, that it fails in a high percentage of stage 2 cases, and that properly administered irradiation will destroy lymph node metastases. It involves the delivery of intensive irradiation to the axillary-supraclavicular nodes, the internal mammary chain, and the anterior chest wall.

X-ray therapy as a primary definitive form of treatment has not been used extensively, and few radiologists have had any experience with it. The patients so treated have been in an advanced stage of disease. Baclesse[6] in 1952 reported on 130 cases treated between 1936 and 1945 and had a 5-year survival of 31 per cent. Lenz[7] treated 46 patients between 1938 and 1940 and reported a 21 per cent 5-year survival and 15 per cent 10-year survival. Both Lenz and Baclesse found a high incidence of local recurrence even with extremely high doses of irradiation. Since this method of treatment is not competitive with other methods, no attempt is made at comparison.

Now let us look at the results of the various methods of treatment as illustrated by some typical examples.[8]

	Absolute 5-year Survival	
	No. Cases	Per cent
Radical mastectomy (Haagensen)	668	47.9
Radical mastectomy and pre- and postoperative X-ray therapy (Nohrmann)	1,042	40.1
Simple mastectomy and X-ray therapy (McWhirter)	1,606	42

The 5-year survival rates are all about the same. This does not necessarily mean that it is immaterial what type of treatment one uses. Rather, it demonstrates a need for a treatment policy which offers a patient the best chance for survival and yet avoids extensive, aggressive surgical and radiologic procedures when these are manifestly futile.

We do not know all the factors which influence prognosis in an individual case. As Collins[8] has pointed out, survival is strongly influenced by (1) the time of diagnosis, (2) the extent of the disease at the time treatment is instituted, and (3) the rate of growth of the tumor. About 50 per cent of the patients survive 5 years either because their diagnosis was made relatively early, their disease was confined to the breast, or the tumor grew slowly.

On the basis of this concept, the experiences of Haagensen in defining criteria of operability, and the results of McWhirter with simple mastectomy and postoperative irradiation, I should like to advance the following recommendations for the treatment of cancer of the breast:

Stage 1. Radical mastectomy alone. I believe that the information obtained by the examination of the axillary contents is worth a great deal and that the overall morbidity of this procedure is not greater than that of the intensive irradiation supplemental to the simple mastectomy of the McWhirter technic. This irradiation is unnecessary in patients without axillary metastases. For lesions in the medial half of the breast and for those patients demonstrating positive axillary nodes, I would recommend postoperative irradiation to the axillary-supraclavicular area and the internal mammary chain. Notwithstanding its alleged ineffectiveness, I still think that there are instances in which the disease may be limited to the area which can be covered by irradiation, and occasional patients may be salvaged.

Stage 2. Simple mastectomy and intensive postoperative irradiation (McWhirter technic).

Stage 3. Irradiation alone. These are the patients with locally extensive disease and with such criteria of inoperability as inflammatory carcinoma, extensive edema of the skin, and fixation of the tumor to the chest wall.

As regards the new high voltage or supervoltage machines including cobalt and the betatron, it is unlikely that any improvement in our survival statistics will result from the use of these machines, since there is a limit to the amount of radiation which the tissues can tolerate and since we have ample experience with high dosages of irradiation.

BIBLIOGRAPHY

1. Haagensen, C. D.: Diseases of the Breast. Philadelphia: Saunders, 1956, chap. 26.
2. Williams, I. G.: Role of radiotherapy and surgery in treatment of primary breast cancer, in Proceedings of the Third National Cancer Conference, held in Detroit, Mich., June 4–6, 1956. Philadelphia: Lippincott, 1957, pp. 126–37.
3. Haagensen, C. D.: See ref. 1, chap. 28.
4. McWhirter, R.: Treatment of cancer of breast by simple mastectomy and roentgenotherapy. Arch. Surg., 1949, **59,** 830.
5. McWhirter, R.: Simple mastectomy and radiotherapy in treatment of breast cancer. Brit. J. Radiol., 1955, **28,** 128.
6. Baclesse, F.: La roentgentherapie seule dans le traitement des cancers du sein. Acta Unio internat. contra cancrum, 1952, **8,** 129.
7. Lenz, M.: Radiocurability of cancer. Am. J. Roentgenol., 1952, **67,** 428.
8. Collins, V. P.: Reasons for failure of treatment among 957 cases of cancer of the breast, in Proceedings of the Third National Cancer Conference: See ref. 2, pp. 171–76.

CHEMOTHERAPY IN THE MANAGEMENT OF METASTATIC CARCINOMA OF THE BREAST

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After leaving the area of hormone treatment in breast cancer, one finds a rather limited field for the application of presently available chemotherapeutic agents to metastatic cancer of the breast. I should like to touch on four areas where such application may be useful.

In the first place, such agents as nitrogen mustard and triethylene thiophosphoramide, trivially called HN_2 and Thio TEPA respectively, certainly reach the zenith of their usefulness in the management of effusive processes in this disease in pleura, pericardium and abdominal cavity, where these drugs may be used with a high index of success. They are equally as successful, in my opinion, as the radioactive colloids, are as available as your pharmacy in the case of HN_2, and do not entail the costs and hazards which are associated with the radioactive materials. Their mode of action is undoubtedly in great part local, although one cannot refrain from suspecting that there is a systemic effect from both of these. In most instances when the drug is given in full therapeutic amounts into a body cavity, there is not the degree of bone marrow suppression that one sees by the intravenous route. The body of information which now exists on both of these drugs makes me feel that in each instance in which a patient with a malignant effusion is tapped for the first time, serious consideration should be given to the introduction of one of these agents to suppress reaccumulation of fluid.

The second point that I should like to touch upon is the systemic use of both of these agents in the management of metastatic breast cancer. In the coöperative study with which I have been most intimately concerned in the past, there was no indication that in the amounts given by the intravenous route either of these drugs had any place in the treatment of cancer of the breast. HN_2 was given at the rate of 0.4 mg. per Kg. of body weight in an initial course, and then after a reasonable delay of 2 weeks repeated weekly courses were given for a 3-month period. Doses were omitted when the peripheral blood indicated that further treatment would be insupportable at that time. Thio TEPA was administered in a like fashion, but in the amount of 0.2 mg. per Kg. of body weight at first and then continued as indicated above. Our conclusions, as I have stated, in what I consider to be a well designed experiment, were that there was no place for these drugs in managing this disease.

Let me then turn to my third point, that of the use of chemotherapy in patients with primary operable malignant disease. It is my belief that this adjuvant approach is reasonable and consistent with the present experience of men who have treated this illness by primary resection. Already the mechanics of a Nation-wide study involving these drugs are being systematically worked out. I think we can safely say that the future will hold an increasing use of these undoubtedly active anti-tumor agents in patients during primary surgery in order to affect circulating tumor cells and to prevent their nidation in a distant locus, very much in the way that patients with tuberculosis are given chemotherapy or antibiotics at the time of pulmonary surgery.

My fourth point is that there are massive programs of screening at the subhuman level in an attempt to uncover active agents. These are desirable and useful, and should, I believe, uncover more potent materials than we now have.

(*Continued on page 330*)

USE OF DRUGS IN TREATING THE EMOTIONALLY DISTURBED PATIENT*

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REFINEMENTS in psychiatry and in medicine in general of the past 25 years have served to sharpen the physician's capacity to screen symptoms of emotional origin. With improved diagnostic acumen has come a growing need for practical drug therapy of patients now recognized as emotionally disturbed. Until recently the formulary available for this purpose was relatively limited, consisting chiefly of derivatives of barbituric acid and several sympathomimetic amines. Valuable as these agents have been and will continue to be, sizable limitations have restricted their usefulness. Within the past 5 years the list has been expanded with unprecedented speed. Important euphoriants and hypnotics have been developed which offer advantages over existing compounds. Most interest, however, has centered about a group of unique sedatives which have been called "the tranquilizers."

It is now generally agreed that as a group the tranquilizers represent a significant advance in the treatment of the emotionally disturbed patient. Thousands of reports in the literature amply attest to this. However, they are still the subject of great controversy. The philosophy of prescribing tranquilizers has been questioned on the basis that at least some emotional tension is necessary for the human being to remain productive, or that unrelieved tension is a force toward solving problems. Although this may be partly true, such reassurance is generally small satisfaction to the patient who seeks the help of his doctor because of nervous discomfort. It is also doubtful that many patients consult physicians if ability to cope with problems and work efficiency are enhanced by anxiety. Fears have been expressed that there is danger of manufacturing a society that exists on tranquilizers. Perhaps the same alarms were sounded when the barbiturates were introduced. More plausible debate has concerned the therapeutic value of these drugs. Unfortunately, when they were first introduced they were greeted with such overoptimism that disillusionment was inevitable. Much of the criticism which followed was justifiable, some disproportionate. Under any circumstance it acted as a salutary, sobering force. Less justifiable has been the unwarranted discrediting of the drugs themselves due actually to improper technics of administration, injudicious use, and poor selection of patients. Recently, new preparations, but more often modifications of old ones, have been released so rapidly as to befuddle even the most interested observer. Confusion has been compounded by suspicion and hostility when clinical experience has failed to substantiate premature claims. Some physicians have attempted to solve their dilemmas by either rejecting tranquilizers entirely or adopting the shotgun principle of prescribing them whenever an illness is psychogenic.

It is important, particularly during the current period of transition, to maintain a logical perspective on tranquilizers and tranquilizer therapy. Evaluation of a tranquilizer is a long-term project, experience having shown that protracted clinical trial is necessary before assessment becomes possible. At the present stage of development data are insufficient for decisive appraisal, either individually or collectively. Several compounds have been subjected to such thorough study that our clinical knowledge of them is almost complete; however, most will require further investigation. The problem is vastly complicated by the fact that they are of multiple chemical origins, indications, and potencies. Several facts, however, have emerged. Tranquilizers are mainly controllers of symptoms, and cures are unpredictable if not fortuitous. Certain types of symptoms are curbed, but not all patients exhibiting these symptoms are suitable candidates for therapy. Remissions of some psychoses may be obtained, occasionally when other methods have failed. Finally, tranquilizers are valuable additions to, but do not supplant, existing modes of treatment.

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There has been much discussion of their toxic properties. Numerous studies have demonstrated that despite many unpleasant side-effects and occasionally serious complications, the ataractics in general are relatively safe drugs which can be utilized without exceptional risk. However, publicity given the adverse reactions has caused many physicians to overvalue the toxic aspects, so that fear has too often replaced normal caution. Many therapeutic failures can be attributed to this. Reluctance to give adequate amounts has been based on the misconception that incidence of complications parallels dosage. Actually the association between these two factors is limited. The majority of toxic reactions bear no relation to dosage level and are thought to be allergic responses occurring in sensitive patients. The classic example of this is chlorpromazine jaundice, which occurs as often on low doses as it does on high ones.[1, 2] No rule has ever been established to predict a complication. In this regard the distinction between side-effects and complications should be stressed. Side-effects are undesirable but expected reflections of drug action. One or more occur in almost every patient, and with certain exceptions are due to physiologic action on various levels of the nervous system. Complications, on the other hand, are unexpected reactions which occur in a small percentage of patients. Fortunately, most complications are reversible and leave no residue. Fatalities have been reported but are rare indeed in proportion to the number of patients who have taken these drugs.

There is also very little correlation between complications and prolonged use. Untoward reactions usually take place during the early phases of administration, particularly during the second through the fourth week. The most serious complication of tranquilizer therapy, agranulocytosis, occurs usually within the first 6 to 8 weeks. Only rarely does a serious adverse reaction appear after the first 2 months of treatment. However, observation should not be relaxed at this or any other point in treatment, since ataractics are not innocuous drugs despite their wide margins of safety. Furthermore, they are given because of their effects on the brain, our knowledge of which is pitifully small.

Principles of Tranquilizer Therapy

In practice, successful results with tranquilizers are dependent on many factors, not the least of which is the wisdom of the prescriber. A knowledge of certain basic facts and established therapeutic principles is vital, as is a clear understanding of the indications, limitations, and contraindications of the several drugs which the practitioner expects to use.

The technic of the chemotherapy of psychiatric disorders is fundamentally similar to that used in the insulin treatment of the diabetic. There is no reason to regard it as any more or less complex. In diabetic therapy, candidates for insulin must be properly chosen, the most appropriate form of insulin determined, and dosage gauged by the requirements of the patient. Just as no single form of insulin is effective in every case, no single tranquilizer is universally applicable. Some diabetics are never controlled, no matter what form, combination of forms, or dosage of insulin is used, or how long the physician perseveres. The same is true in the use of tranquilizers.

Rational tranquilizer therapy is based on the proper selection of patients and the scaling of dosage to the needs of the patient. Equally important is the setting of reasonable therapeutic goals. It is important not to overestimate the power of a tranquilizer. The fact that they have been tied together by a label—"tranquilizer"—has given rise to an unrealistic concept widely held within and without the medical profession. The erroneous idea is prevalent that the tranquilizers possess heretofore unknown properties bestowing special capacities to reverse emotional disorders of any and all sorts. This is a distortion of the facts. In the pre-tranquilizer era, as Berger[3] has pointed out, chlorpromazine would have been called a potent hypnotic, reserpine a true sedative, Suavetil an atropine substitute, Atarax an antihistamine, and meprobamate a long-acting muscle relaxant. A more logical perspective is to regard them as useful sedatives having a common desirable feature of calming without materially impairing intellectual function or causing loss of consciousness. Within limits, older drugs in the Pharmacopeia may do the same thing. For example, phenobarbital in doses usually employed in non-hospitalized neurotics produces no significant impairment in mental acuity. Larger doses, however, will depress cortical function, which, however, is preserved when equivalent doses of tranquilizers are used. This resistance of the cerebral cortex to the action of tranquilizers has important clinical significance. The patient in tranquilizer-induced sleep can always be awakened. If the patient cannot be awakened, an untoward reaction has occurred, the nature of which must be immediately ascertained. The action of these chemicals in reducing tension is comprehensible on the basis of their sedative properties. However, the ability of some to effect remissions in some psychoses, especially in cases refractory to previous treatment, is much more difficult to understand and has become the stimulus to much needed research into the physiologic and chemical aspects of the psychologic processes.

In general, the prognostic criteria with ataractic therapy are the same as with any other form of psychiatric treatment. An acute illness developing in a previously well-adjusted person is more likely to be relieved than a chronic disorder in a poorly integrated personality.

SELECTION OF PATIENTS

In selecting patients it is well to remember that the function of a tranquilizer is to reduce anxiety, agitation, and/or aggression, irrespective of the diagnostic entity in which the manifestation may appear. Improvement is not based on the diagnosis, but on the presence or absence of these specific features in the illness. If the patient displays none, results will be negligible. Hence, minimal benefit can be expected if the patient is withdrawn, hypochondriacal, or is deriving secondary gain from being sick. Use is not confined to the patient whose difficulties are solely of psychic origin. They may prove helpful in cases in which anxiety is only a complicating factor, as when recovery from physical illness is slowed by fear and anxiety, or when panic develops in anticipation of surgery.

Although application is primarily based on symptoms, the physician is not relieved from establishing the diagnosis and evaluating the personality of the patient. This is an important consideration, because some patients can be made worse by tranquilizers. They should be used very cautiously in depressed patients. There are occasional exceptions to this rule if the depression is a transient response to a current, external situation. Some ataractics, particularly the phenothiazine derivatives and Rauwolfia alkaloids, may mobilize an incipient depression or exaggerate an existing one. Downhill progress during treatment may signal that the diagnosis was missed and that what was apparently an anxiety state was in reality an early, disguised depression. Perfectionistic, obsessive personalities may be panicked by side-effects, and such patients should either not be given tranquilizers or should be given prophylactic reassurance. Psychopathic personalities frequently abuse their medication and are poor candidates for treatment.

The value of certain tranquilizers in functional psychoses has been very encouraging, especially in schizophrenia and the manic phase of the manic-depressive psychosis. Complete reliance by the practitioner on drugs in the treatment of the acutely psychotic patient may prove unwise, and I believe that this type of case is best treated in a psychiatric setting. The family doctor, however, must anticipate that he will be called upon more and more to manage chronically psychotic patients as state hospitals dismiss stabilized cases on maintenance doses.

Dosage

Dosage is determined entirely on the basis of patient response and must be adjusted to the requirements of the individual. In few other therapeutic methods is this yardstick so crucial. One patient may derive complete relaxation from minimal doses, whereas another with an essentially similar clinical picture may require many times the amount. No rigid rule governs how long administration should be continued; only clinical judgment can determine this. If remission or recovery has once been achieved by ataractic therapy, it is probable that improvement can be reproduced in case of relapse. In such cases it is important to reinstitute medication quickly. Some psychotics and severe neurotics require maintenance therapy. If it becomes clear that social adjustment is in such delicate balance that exacerbations are inevitable without support, medication should be continued indefinitely. Many such patients become adept at manipulating their dosage to the point of therapeutic effectiveness, raising it when anxiety is intense, lowering it when indicated. If the patient is considered reliable, he may be allowed to follow such a procedure.

Classification

Some 17 compounds advertised as having tranquilizing action are currently in popular use. Many do not differ significantly in their therapeutic properties. Indeed, the major variations occur in intensity of action on the autonomic nervous system and suitability for special therapeutic purposes such as psychotic disorders. Proper selection rests upon an intimate knowledge of their pharmacology and toxicology as well as an acquaintance with the important variations in action and toxicity manifested by certain individual members.

On the basis of chemical structure they can be divided into 4 groups: (1) phenothiazine derivatives (chlorpromazine, promazine, etc.); (2) Rauwolfia alkaloids (reserpine and others); (3) diphenylmethane derivatives (hydroxyzine, benactyzine), and (4) substituted diols (meprobamate, phenaglycodol). They can also be divided according to therapeutic spectrum.

Seven ataractics are derived from phenothiazine, an antihelminth which was discarded because of its toxicity. This group, the prototype of which is chlorpromazine (Thorazine), possesses the widest therapeutic spectrum, and is also most likely to produce complications. Much effort has gone into finding a compound having the therapeutic potency of chlorpromazine minus its undesirable properties. Promazine (Sparine) and promethazine (Phenergan), which are actually older drugs than chlorpromazine, have proved to have lower incidences of complications but in my experience have not been as therapeutically satisfactory. Promazine was initially thought to be free of such complications as vascular collapse, parkinsonism, and agranulocytosis, but all have been encountered.[4, 5, 6] Appropriate precautions should be observed in administering any phenothiazine derivative, and statements that a phenothiazine derivative is free from complications should be regarded as preliminary until definite proof, obtainable only from lengthy clinical experience, is demonstrable. It should not be forgotten that jaundice was recognized as a complication of chlorpromazine only after being widely used in Europe for over 2 years. Lately, 4 new phenothiazine derivatives, procloperazine (Compazine), mepazine (Pacatal), triflupromazine (Vesprin), and perphenazine (Trilafon), have been released. I have been very encouraged by results obtained with Trilafon, particularly in the treatment of schizophrenia. However, patients must be watched closely, since parkinsonism and other basal ganglia syndromes develop rapidly and in a high percentage of patients. It is often preceded by restlessness and overtalkativeness, and it is wise to request that you be notified if these early signs appear. When dosage is reduced or discontinued the syndrome quickly disappears.

The best known Rauwolfia alkaloid, reserpine, is derived from the root of a tropical bush, *Rauwolfia serpentina*. Powdered preparations of the whole root and partially purified mixtures of alkaloids of the alseroxylon fraction also possess tension-reducing activity. Deserpidine (Harmonyl), an alkaloid of another species, *Rauwolfia canescens*, is purported to have fewer side-effects than reserpine. Like chlorpromazine, reserpine has powerful effects on the autonomic nervous system. These effects can be utilized clinically. For example, since reserpine induces bradycardia and intestinal hyperperistalsis it may be used to advantage in patients preoccupied with tachycardia and constipation. Contrariwise, chlorpromazine may prove valuable in a case of functional diarrhea, since it slows intestinal motility. Reserpine is less toxic and expensive than the phenothiazine derivatives, but its slow action and tendency to induce depression restrict its usefulness in everyday practice.

I have so far been discussing what might be termed "the broad spectrum tranquilizers," in the sense that they are utilizable throughout the entire range of functional psychiatric illness. In other words, they may be applied in both neurotic and psychotic disorders. They are potent drugs, and their use entails risk. A large segment of patients seen in office practice do not require such potent agents. The majority have emotional or psychosomatic disturbances in reaction to acute situational stress; they are effectively treated by the family physician, and psychiatric care is seldom required. Others suffer from highly distressing chronic tension states, but circumstances, such as nature of employment, do not allow any interference with function as might be caused by large doses of barbiturates or strong ataractics. Others are unwilling or unable to tolerate unpleasant side-effects, and risk of complications is unwarranted or inadvisable. In these types of cases, in which mild barbiturates are ordinarily prescribed, a mild ataractic may prove beneficial or preferable. Whether the capacity of the milder tranquilizers to relieve tension surpasses that of barbiturates has not been definitely determined. In my opinion, the principal gain with the newer drugs lies in the fact that intellect is not dulled and habituation is less likely.

Meprobamate, marketed as Equanil and Miltown, has drawn much attention. It is chemically a derivative of mephenesin, exerting similar but more prolonged sedative and muscular-relaxing action. Relief is usually neglible if features indicative of anxiety are absent or if anxiety is of psychotic proportions. Low back pain and other psychosomatic syndromes in which sustained muscular contraction is prominent may be benefited. The usual dose is 400 mg. 3 to 4 times daily. In some cases tolerance develops rapidly, and doubling of the dosage may be required. In others improvement may allow halving. The main side-effects are drowsiness and weakness in the early course of treatment and occasionally gastric irritation. In contrast to the phenothiazine derivatives and reserpine, meprobamate has no significant effect on the autonomic nervous system, so that side-effects of this type do not appear. It is not a nontoxic drug, however. Allergic skin reactions may occur, and in my series a near-fatal anaphylactoid reaction lasting 4 days began 1½ hours after an initial dose of 1 tablet.[7] Nonthrombocytopenic purpura has also been described.[8] It is said that in 1956 a billion tablets were sold[5]; the speculation can scarcely be avoided that in many instances this drug has been used indiscriminately or as a panacea.

Hydroxyzine (Atarax) is a Belgian drug related to meclizine (Bonamine). Aside from its action as a tranquilizer it is a potent antihistamine. Its chief value also appears to be in the treatment of nonpsychotic disorders so frequently seen in everyday practice. The suggested dose in adults has been 25 mg. 2 to 4 times daily, and therapeutic results may accrue at that dosage level. Recently larger doses have been recommended for maximal results.[9] In uncontrolled studies I have found most benefits to occur if the dose is 50 to 100 mg. 4 times a day. One of the major attributes of Atarax is the relative absence of side-effects and the fact that there have been no indications of impairment of hemopoietic, liver, or renal functions. Drowsiness, which usually disappears after the first 2 to 3 days of therapy, is the most frequent side-effect. Dryness of the oropharynx, rhinorrhea, increased peristalsis, and headache may also occur.

Benactyzine (Suavitil) was developed in Denmark in 1936. Related to Artane and Trasentine, it also has strong antispasmodic action. Its recommended dose is 3 to 9 mg. per day. Reports from abroad indicate a high degree of success. The few reports in the American literature suggest that its action is inconsistent, and that side-effects, which stem from its atropine-like properties, are very common and distressing.[10, 11]

Phenaglycodol (Ultran) has pharmacologically similar properties to meprobamate. A similar quality of sedation is obtainable clinically but in my series has not proved as effective. The recommended dose is 300 mg. 3 to 4 times daily. Side-effects resemble those of meprobamate.

Iproniazid (Marsilid) should not be confused with the tranquilizers. It acts as a stimulant and euphoriant, and thus is reportedly valuable in the treatment of depressions. The merit of this drug has not been definitely established, the principal objections being the frequent side-effects and possible toxicity.

SUMMARY

Judicious use of drugs is an important facet of the care of the emotionally disturbed patient. Lately the formulary available for this purpose has been greatly expanded by the addition of a group of diverse compounds which have been collectively termed "the tranquilizers." Currently an atmosphere of confusion surrounds these drugs, and many misconceptions exist. This is particularly true in relation to dosage, toxicity, and selection of suitable candidates for therapy. Unpredictability of response and often distressing side-effects are the major deficits of the products presently available. However, they have broad practical application and may provide gratifying relief for the patient who exhibits signs of anxiety, agitation, and/or aggression.

Decisive appraisal of the individual drugs will require further experience. However, it does appear that the concept of tranquilization as a therapeutic method is sound, offering encouraging possibilities for the future of psychiatric treatment.

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BIBLIOGRAPHY

1. COHEN, I. M., AND ARCHER, J. D.: J.A.M.A., 1955, **159,** 99.
2. SUSSMAN, R. M., AND SUMNER, P.: New England J. Med., 1955, **253,** 499.
3. BERGER, F. M.: Ann. New York Acad. Sc., 1957, **67,** 685; discussion, 699.
4. FORD, H.: Personal communication.
5. BRACELAND, F. J., GRINKER, R. R., AND MEDUNA, L. J.: Mod. Med., 1957, **25,** 190.
6. WOODWARD, D. J., AND SOLOMON, J. D.: J.A.M.A., 1956, **162,** 1308.
7. COHEN, I. M.: Texas J. Med., 1956, **52,** 683.
8. Report of Council on Drugs: Potential hazards of meprobamate. J.A.M.A., 1957, **164,** 1332.
9. AYD, F. J., JR.: New York J. Med., 1957, **57,** 1742.
10. AYD, F. J., JR.: New England J. Med., 1957, **257,** 669.
11. LEMERE, F.: Am. J. Psychiat., 1957, **114,** 371.

GRANULOMATOUS PERITONITIS DUE TO ASCARIS OVA

Report of a Case Simulating Tuberculous Peritonitis

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IT IS THE PURPOSE of this report to call attention to a type of granulomatous peritonitis which is caused by ova of *Ascaris lumbricoides*. This complication of ascariasis has rarely been reported. The present case is considered to be of particular interest because of the absence of adult worms in the peritoneal cavity and the resemblance, at surgical exploration, to tuberculous peritonitis.

Report of Case

(Armed Forces Institute of Pathology Accession No. 744552)

A 23-month-old white female child was admitted to a U. S. Army Hospital in Teheran, Iran, on September 19, 1955 because of fever, abdominal pain and distention, and vomiting of several days' duration following treatment of ascariasis with Hetrazan.

Physical examination revealed an acutely ill child who was poorly hydrated. The abdomen was distended and tender. Auscultation revealed numerous audible peristaltic tinkles and rushes. The oral temperature was 99.8° F (37.7° C). A flat plate of the abdomen showed distention of the small bowel (figure 1-A).

Following ineffective conservative treatment during which Ascaris worms emerged from the child's nose and mouth, laparotomy was performed on September 22. The abdomen was opened through a middle and lower right rectus incision. The peritoneal cavity contained a small amount of seropurulent fluid, and the mesenteric nodes were enlarged. Many markedly distended loops of small bowel hampered the operative exposure. In the right lower quadrant a necrotic inflamed cylindrical structure, thought to be the appendix vermiformis, approximately 6 cm. in length, was found adherent to a loop of ileum and stretched across another loop, thereby obstructing it. The small bowel proximal to this obstruction was distended. The inflamed cylindrical structure was resected, and the distended small bowel was partially decompressed by enterotomy. One Ascaris adult worm was removed from the small intestine during the decompression, but none was found in the peritoneal cavity.

Studding the visceral peritoneum of the cecal area and distributed over almost the entire anterior parietal peritoneum were many miliary, closely-spaced, whitish nodules, approximately 1 mm. in diameter. These resembled the tubercles seen in cases of tuberculous peritonitis. A biopsy specimen was taken from the anterior parietal peritoneum.

The patient was discharged from the hospital 8 days after operation and, following carefully controlled antihelminthic therapy, showed progressive improvement. When last seen in May, 1957 she was well and her stools were free of parasites and ova.

Pathologist's Report

The gross specimens consisted of (a) a firm, irregularly-shaped cylindrical mass, 6 cm. in length and varying from 0.5 up to 1.2 cm. in diameter, covered by hemorrhagic adhesions and small fragments of friable tissue, and (b) fibro-fatty tissue measuring 1.7 by 0.4 by 0.3 cm. Microscopically specimen "a," the cylindrical structure, consisted of granulomatous inflammatory tissue with a central necrotic area containing numerous helminthic ova

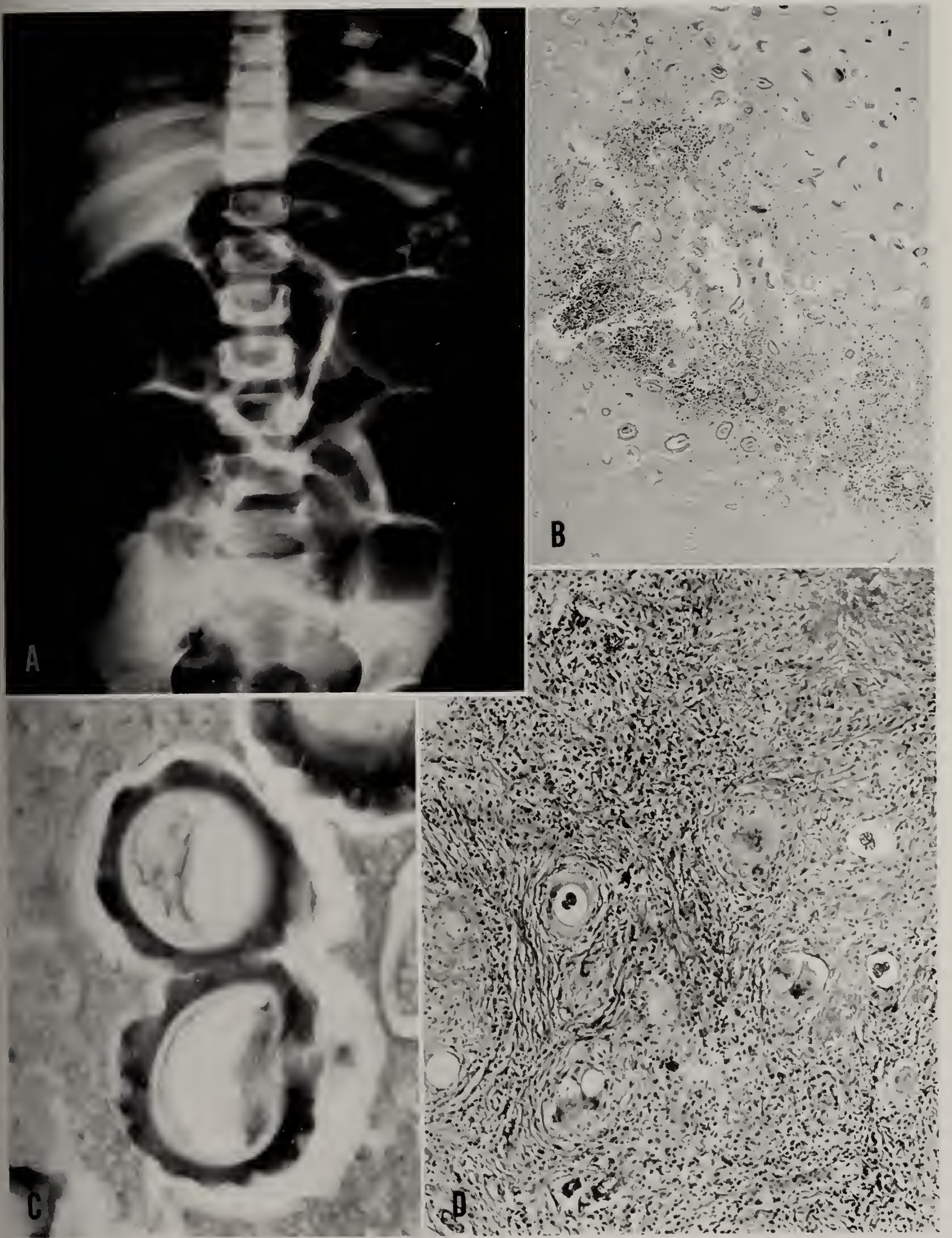

Fig. 1: A—Flat plate of abdomen showing small bowel distention; B—Necrotic tissue containing numerous Ascaris ova (AFIP neg. 57-3419); C—Scalloped outer coating of Ascaris ova (AFIP neg. 57-13395); D—Small discrete granulomas (AFIP neg. 57-13390).

(figure 1-B). Some of the ova were degenerated, but many exhibited the scalloped coating characteristic of Ascaris ova (figure 1-C). Surrounding the central necrotic area was a zone of inflammation in which lymphocytes, large mononuclear cells, and proliferating fibroblasts were the predominant cells. Within this inflammatory area and extending into the surrounding connective tissue were numerous small discrete granulomata (figure 1-D). Many of these consisted of central necrotic and surrounding fibroepithelioid zones. Multinucleated giant cells were present in or around some of the granulomata. Ascaris ova were found partially or completely engulfed by giant cells (figure 2-A). Special stains for acid-fast bacilli and fungi were negative. Neither adult nor larval forms of Ascaris were found. The ova were mostly unicellular, but occasional 2-celled fertilized ova were found (figure 2-B). At the periphery of specimen "a" a few smooth muscle cells were found and the structure was thought to be the appendix vermiformis or possibly a salpinx. In one of many sections some ovarian tissue was found in the surrounding connective tissue, and fragments of ovarian tissue were present in a number of the sections prepared from specimen "a". Since the tissue was largely necrotic or inflamed and no remnants of mucosa or lymphoid follicles could be found, the exact identity of specimen "a" remains undetermined.

Specimen "b" consisted of inflamed connective tissue taken from the anterior parietal peritoneum. Microscopically there were numerous discrete granulomata (figure 2-C). Ova were difficult to find in this specimen, but an occasional degenerated ovum was present (figure 2-D), and the granulomatous inflammatory reaction was similar to that in specimen "a" except that there was no massive necrosis, and eosinophils as well as some plasma cells were present in the loose connective tissue around the granulomata.

DISCUSSION

Cooray[1] has observed a case of "subacute Ascaris peritonitis" in a 3½-year-old Sinhalese male child. At operation no Ascaris worms were found in the peritoneal cavity, but granulomatous peritonitis was present and had the appearance of tuberculous peritonitis. Microscopically Ascaris ova were found in circumscribed granulomata. Cooray later produced a similar granulomatous peritonitis in rats. In a personal communication he stated: "We introduced a suspension of Ascaris eggs into the peritoneal cavity of rats and followed the lesions at intervals. Pathological changes were found chiefly in the omentum. There was a marked inflammatory reaction in the 'milk spots' of the omentum in which situation the eggs collected. This was followed by a mononuclear cell reaction, and in about 6 weeks granulomata with giant cells developed. In some of these, disintegrating ova could still be made out. These lesions were microscopically similar to those seen in human cases."

In 1936 Africa and Garcia[2] reported the case of a 50-year-old Filipino woman who died of acute peritonitis following obstruction and subsequent rupture of the intestine due to infestation with ascarids. The abdominal cavity contained a large number of dead worms mixed with a thick, yellowish, fibrinopurulent exudate, and in the mesentery many small tubercle-like nodules were palpated. Microscopically these tubercles consisted of rounded, circumscribed masses of proliferating fibroblasts mixed with inflammatory cells, and the tubercles contained numerous developing Ascaris eggs, the majority of which were fully embryonated.

The ability of Ascaris ova to produce discrete granulomas with central necrosis and surrounding fibroepithelioid reaction is evidenced by Cooray's clinical and experimental observations, by the histologic appearance in the present case, and by recent microscopic examination of a liver section in which discrete granulomas with central necrosis were produced by Ascaris eggs in a patient from South America.[3]

Jenkins and Beach[4] have mentioned a case in which the operative findings were suggestive of a diagnosis of tuberculous peritonitis. In their patient, a 4-year-old boy operated upon for partial intestinal obstruction which did not respond to conservative therapy, many peritoneal nodules were associated with dense peritoneal adhesions. There was no intraluminal bowel obstruction, and no Ascaris worms were found in the peritoneal cavity. A section of the peritoneum containing the nodules showed microscopically a granulomatous inflammation with numerous egg-like structures measuring 70 to

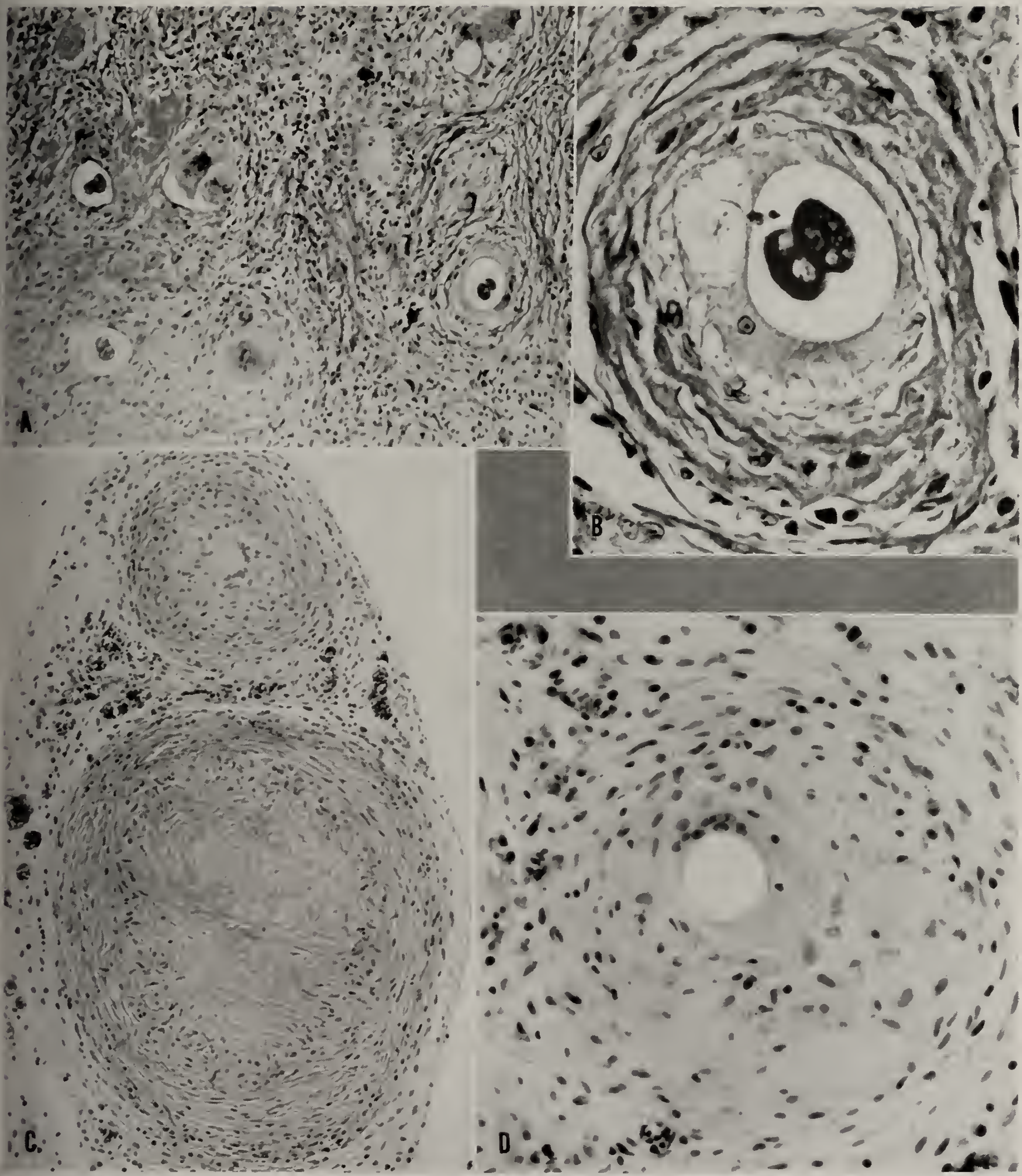

FIG. 2: A—Ascaris ova partially or completely engulfed by giant cells (AFIP neg. 57-13391); B—Two-celled Ascaris ovum within a giant cell (AFIP neg. 57-13393); C—Microscopic granulomas in section of anterior parietal peritoneum (AFIP neg. 57-13394); D—Degenerated ovum in a multinucleated giant cell within a microscopic granuloma of the anterior parietal peritoneum (AFIP neg. 57-13392).

100 microns in diameter. The walls of these structures appeared to be chitinous, and the pathologist believed them to be of helminthic origin. Unfortunately, the ovoid elements were not definitely identified.

Recently, Henao[5] has reported 9 cases of aberrant lesions produced by eggs of *Ascaris lumbricoides*. Two of these cases had granulomatous lesions of the peritoneum and mesentery due to Ascaris eggs. It was the author's belief that the eggs were deposited in the tissues by wandering adult female worms. By injecting a saline suspension of Ascaris eggs into the livers of guinea pigs Henao reported that he was able to produce lesions similar to those seen in human cases with hepatic lesions due to Ascaris eggs.

The mechanism by which Ascaris ova reached the peritoneal cavity in the present case is not known, but the histologic appearance together with the failure of the surgeon to find adult worms in the peritoneal cavity suggests that the ova "leaked out" through the necrotic wall of a tubal structure, probably the appendix vermiformis or a salpinx. However, there is the possibility that an adult female Ascaris worm might have migrated partially or completely into the peritoneal cavity, deposited ova, and then returned to the intestine.

SUMMARY

A case of granulomatous peritonitis due to Ascaris ova has been presented. The gross appearance at laparotomy simulated tuberculous peritonitis. Peritonitis due to Ascaris eggs may occur in ascariasis without the adult worms being present in the peritoneal cavity at the time of surgical exploration. The differential diagnosis requires microscopic examination and identification of the ova. The prognosis is apparently excellent if the necrotic focus is resected and proper antihelminthic therapy instituted.

BIBLIOGRAPHY

1. Cooray, G. H., Department of Pathology, University of Ceylon: Personal communication.
2. Africa, C. M., and Garcia, E. Y.: Embryonated eggs of Ascaris lumbricoides in mesenteric tissue of man, with special reference to possibility of autoinfestation. J. Philippine Islands M. A., 1936, **16**, 461.
3. Latorre, H., Armed Forces Institute of Pathology: Personal communication.
4. Jenkins, M. Q., and Beach, M. W.: Intestinal obstruction due to ascariasis; report of 31 cases. Pediatrics, 1954, **13**, 419.
5. Henao, A. C.: Lesiones por ascaris erraticos. Rev. Latinamericana de Anat. Pat., 1957, **1**, 5.

President's Page

MALPRACTICE CLAIMS AND THE HOSPITAL

My survey of the influence of malpractice claims on surgery rather naturally led me to inquire about the effect of such claims against hospitals. I talked with several hospital administrators, a member of a hospital board of directors, a claims attorney, an insurance representative, and a number of doctors.

Formerly, charity hospitals were not held liable to the beneficiaries of their charity although they were liable to servants and to strangers. In many jurisdictions nonprofit hospitals were held exempt from claims not only from charity patients but from those charged a regular hospital rate. However, the trend in recent court decisions has been toward abandoning this immunity rule. Following loss of this immunity in the District of Columbia, claims were made against hospitals, some resulting in rather large settlements. Increasing claims brought about higher premiums for liability insurance, but the loss ratio was so poor that no company solicited it, and only a few would accept it and did so solely on an accommodation basis and provided they carry all other insurance of the institution. A few years ago one hospital in the District of Columbia was suddenly notified that all of its liability insurance was cancelled, and a new policy was obtained with great difficulty. Another hospital has been able to obtain only rather limited coverage and this at a higher premium.

In a third hospital, because of a poor loss ratio, the premiums for liability insurance mounted year by year· The underwriters then turned to their Safety Engineering Department which recommended that a Patient Safety Committee be established. This Safety Committee meets at regular intervals, reviews all incidents, and carries out an educational training program designed to eliminate all hazards. These committees are based on the principles and experiences employed by accident prevention, safety and first aid committees which have been used in industry for many years.

Last April, 17 incidents were brought to the attention of a Safety Committee in one hospital. Of the 12 which involved patients, 11 were the result of falls—falls from or getting into or out of bed, falls from a toilet, or in ambulation. In 2 there was no injury; 9 resulted in a bruise, pain or discomfort, but none was serious.

Hospitals now have an all-out campaign for prevention. During the year 1957 there were no claims entered against one hospital. Constructive thinking and attention to detail on the part of hospital administrators have resulted in careful planning. Not the least of their efforts has been devoted to emphasis on awareness of possible claims with indoctrination of the staff, professional employees, and other personnel of incidents which lead to claims.

Emphasis on safety which benefits a majority can result in detriment to the individual patient. Some psychiatrists believe that a number of emotional disorders should be treated in general hospitals. However, if there is a note in the history stating that the patient is depressed or has expressed suicidal ideas, this puts the hospital "on notice" and makes it responsible for extra precautions. One administrator states that he never knowingly admits such patients, and if these symptoms are discovered after admission the patient is required to have special nurses around the clock or be transferred to a psychiatric unit. Likewise, rehabilitation may be impeded. A formerly paralyzed patient must learn to sit in a chair, walk on crutches, and finally walk alone. With each step of progress there is a certain risk. If the doctrine of *res ipsa loquitur* were applied to every accident in a hospital, the institution might find it safer to keep the patient in bed instead of making an attempt at rehabilitation.

This development in hospital policy and procedure might have occurred in the natural course of events' but since immunity from claims by patients in nonprofit hospitals has been removed in the majority of states and the trend is toward further removal, attention of hospital administrators has of necessity been focused on the problem and they have set about finding the best possible solution.

James W. Watts

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Editorials

YOUTH FITNESS

Fitness of individuals has long been among the cherished goals of members of the medical profession. This is particularly true among those in the profession who look after the growth and development of infants and children. The term "fitness" means different things to different people and yet its meaning really resolves itself into a total well-being of the individual during the formative years and in mature, adult life. It means the ability to meet the problems of everyday living in the best possible manner.

Interest in fitness, however it may be defined, is not new to physicians. Long have we been deeply concerned with the protection and preparation of the youth of America, for the youth of today are the adults of tomorrow. The early proceedings of the House of Delegates of the American Medical Association have shown an interest in the fitness of American youth since the Association's organization in 1847. Public health physicians have had an avid interest in and concern for the health protection of youth

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

(as well as adults) ever since local governments assumed any responsibility for public health. Even Plato, over 2,000 years ago, recognized that physical education during the first 10 years should have a predominant role, and that every school should have a playground. It is during this decade that patterns of health are established.

At the request of President Eisenhower, a Conference on Fitness of American Youth was held at the Naval Academy in Annapolis, Maryland, in 1956. It was my privilege to represent the American Academy of Pediatrics at this Conference, which was attended by approximately 150 individuals. These participants included physicians, dentists, public health personnel, educators, coaches, athletes, representatives of organizations interested in amateur and professional sports and mass publicity media, and persons interested in recreation, camping, the outdoors, and the general areas of youth fitness. As a result of this Conference, the President's Council on Youth Fitness was established. It consists of 5 Cabinet members—Secretaries of the Interior, Labor, Agriculture, Defense, and Health, Education and Welfare. Vice President Nixon was the first Chairman, but relinquished this post because of pressures of other official duties. Secretary of the Interior Fred A. Seaton was made Chairman of the Council. Mr. Shane MacCarthy has been its Executive Secretary since the outset.

Under this auspicious leadership the American Medical Association was stimulated to renewed interest and vigor in the effort to improve the fitness of American youth. It is an opportunity and challenge to the medical profession. The Sixth National Conference on Physicians and Schools, held at Highland Park, Illinois in October 1957 devoted a great deal of its time and focused its attention on fitness of American youth.

"Fitness, according to the medical concept, must be based on essential fundamentals of which the first is good physical and emotional health," states an editorial in the *Journal of the American Medical Association*.[1] "To achieve this end," continues the editorial, "we must have good nutrition, periodic evaluation of health needs, intelligent attention to healthful living at home and in the school, adequate recreation and activity, the development of personal sports, and emotional adjustment to circumstances as they arise. . . ."

The opportunity of, and the challenge to the medical profession is to let its voice be heard and to establish the clear and unequivocal position of medicine and public health as to what will promote fitness of American youth. What that policy should be is aptly stated in the editorial mentioned above: "Medicine does not discourage activity, sports, competition, or even a reasonable risk of injury. Medicine recognizes that a fractured ankle may leave less of a scar than a personality frustrated by reason of parental timidity over participation in contact sports. Medicine does recognize, however, that there are contact sports which have for their main purpose, rather than competition and victory, injury to the opponent. Medicine recognizes also that there are contact sports and degrees of competition which are too severe for the immature. In standing against the abuse of highly desirable exercise and highly necessary competition, medicine in no way objects to activity, competition, and risk, in its proper place. All life is a risk and without courage, life is not worth living."

Many members of the medical profession have given unstintingly of their time and services in countless communities to the cause of youth fitness. The medical profession is ably represented on the President's Citizens Advisory Committee on the Fitness of American Youth. As always, the medical profession may be counted upon to give its wholehearted support and coöperation to worthy projects. The broad program for fitness of American youth as espoused by the President's Council on Youth Fitness is a project of that nature.

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[1] J. A. M. A., 1957, **165**, 54.

The designation of Youth Fitness Week in June by the President of the United States serves to reëmphasize the importance of our goal. Local medical societies have an opportunity and an obligation to make known to their communities their interest and willingness to participate in community action toward the greater fitness of American youth.

George Maksim, M.D.

THE HOMEMAKER SERVICE OF THE NATIONAL CAPITAL AREA, INC.

It is easy for you, a physician, to prescribe complete bed rest. But how can a busy wife and mother follow such a prescription? Sometimes the answer may be by writing "Homemaker Service" on your prescription blank. Washington once had such a service, first as a Works Progress Administration project and then operating under the District Health Department until it became the victim of a lacerated budget.

Somewhat over 2 years ago the Health and Welfare Council (then the United Community Services) Health Section, in coöperation with the Family and Child Care Section, set up a Planning Committee to study the necessity for such a service here and the desire for it. The experience of other communities throughout the United States and Canada also was considered carefully.

The urgently and unanimously expressed need to fill this gap in our community resources led the Committee to hammer out an action plan rather than just a study.

Our first consideration was to determine what we were trying to produce. Homemaker Service provides the supervised placement of trained women in homes threatened by the strains of illness, disability, death, or human inadequacy. Their function is to bring a stability and easing of tensions and worries by their attention to the "bread and butter" essentials of daily living. They are equipped to care for children, plan and prepare meals, market, and keep the home and its occupants reasonably clean and orderly, all within the familiar patterns and setting of the family and home.

They are warm, outreaching women with a capacity for understanding and giving without becoming emotionally involved in individual problems. Primarily concerned with maintaining the home, these workers are not nurses. Rather, they supplement the professional skills of doctors and nurses by their attention to the essential, though nontechnical, aspects of day-to-day living.

The potentialities of this organization in human relationships are immeasurable.

It is common sense, scientifically documented, that a child should be placed in a foster home or institution only when there is no alternative.

A patient should be discharged from a hospital as soon as is medically safe. Psychologically, the home atmosphere brings more rapid recovery, reassures the family, and is less expensive.

It is a well established principle in geriatrics that many aged persons live happier and more useful lives in the familiar settings of their own homes.

In studying the effectiveness of similar services in this and other countries, the Planning Committee found Homemakers often prevent the breakup of the home, thus reducing behavior problems and juvenile delinquency.

The second question was how to set up such a service in Washington. Community patterns vary, and after the most careful study of this aspect the Planning Committee recommended the establishment of an independent central service of a sufficiently flexible nature so that it could be adapted readily to meet any changes in community patterns, needs or resources in the future.

A thorough examination of the financial structure of agencies throughout the country wherever available, and of local standards, led the Committee to set up a budget of $40,000 a year to provide salaries of an executive director, a secretary, and 10 Homemakers, and to cover other costs such as rent, insurance, etc. Under present United Givers Fund policies the agency must raise this amount for 2 years. One full year of operation is a prerequisite for consideration of its application, and another year is needed to process this application. There is every indication that the Health and Welfare Council and United Givers Fund will accept the Homemaker Service as a financially participating member at the end of that time.

The agency has been incorporated under the laws of the District of Columbia and has met all legal requirements, including the election of officers and a Board of Directors; it has drafted by-laws and has secured tax clearance from the Federal and District governments. Six committees have been appointed: policies and procedures, public relations, personnel, by-laws, nominating, and ways and means.

The Eugene and Agnes E. Meyer Foundation is providing a grant of $30,000 for the first 2 years. The ways and means committee is seeking the balance of $50,000 for the 2-year period during which the agency must prove community support by its ability to secure funds outside the United Givers Fund.

This service does not duplicate anything we now have in Washington. The Jewish Social Service Agency and the Cancer Society each give some help in their respective areas but are among the most enthusiastic supporters of a community-wide service.

As soon as funds are available a central office will be established to receive and discuss requests for Homemaker Service.

Your interest is invited.

Mrs. Alfred J. Suraci
The Homemaker Service of the National Capital Area, Inc.

THE MENTALLY ILL PATIENT

Elsewhere in this issue will be found a reprint of excerpts from a recent General Order of the Metropolitan Police Department, to which the Committee on Mental Health invites the attention of all physicians, especially those engaged in general and psychiatric practice. Psychiatric emergencies arise from time to time, and sometimes in quite unexpected ways. It is for this reason that the Committee has made available a portion of the instructions issued to the police.

It has been held by the Court of Appeals that the statutes of the District have superseded the common law. Under the latter the hospitalization of the disturbed mental patient was a relatively simple matter; a review of some of the verbiage reproduced from General Order will satisfy even the most casual reader that there is nothing simple in the process now. Nevertheless, in these days particularly, strict compliance is called for if embarrassing situations are to be avoided.

Police still have the right, as they should, to maintain public order by taking into protective custody (at the D. C. General Hospital) any acutely disturbed person who is causing disorder "in a public place" and is even to the layman "insane." It is, however, when the patient is not in a "public place" that the legal complications begin. If such a patient is at home, for instance, 4 affidavits are necessary to warrant the police in acting—2 by "responsible residents" and 2 by physicians (hopefully, they fall in the former category also). These affidavits (we trust that the notary is available readily) must make certain allegations regarding the symptoms of the patient and his need of hospital care.

The other provision referred to in the order is for voluntary admission, either to D. C. General

Hospital or St. Elizabeths Hospital—a useful method, constantly proving more useful.

A provision not dealt with in the order, because the police are not involved, is for the so-called "direct admission" to St. Elizabeths Hospital. This procedure is cumbersome and legalistic, like the rest of our admission procedures (except voluntary). It calls for a petition, to be drawn by a lawyer, and 2 affidavits (usually 1 medical), which if in good order are presented (usually through the Mental Health Commission) to a judge of the District Court. The latter then issues an "order of attachment" (apparently a rough synonym for "warrant") instructing the Marshal to apprehend the patient and convey him to St. Elizabeths Hospital. By this means a duplication of admission and hospital procedures may be avoided. Perhaps some day more of the likenesses between criminal proceedings and those relating to mental hospitalization may be eliminated, and the patient be more nearly dealt with as such than is the case now in our Capital City.

W. O.

NEW CONDUCTOR OF DOCTORS' SYMPHONY ORCHESTRA

Mr. George Manos, pianist and conductor of the Washington Hellenic Choral Society, has been invited to act as Director of the Doctors' Symphony Orchestra upon the resignation of Mr. Richard Wayne Dirksen, who is to be congratulated for his excellent success with such a young orchestra, but whose interest in composing and pressure of other musical responsibilities make it impossible for him to continue.

Mr. Manos is well known for his accomplishments as pianist, conductor, and for the founding and directing of such prominent musical ensembles as the New Washington Simfonietta and the N.A.A.C.C.* and Pro Arte Chamber Orchestras. He studied at both the Julliard School of Music in New York and the Peabody Conservatory in Baltimore, where he became the associate of Dr. Ifor Jones.

Mr. Manos has served the United States Marine Band and Symphony Orchestra as piano soloist, has assisted Messrs. Charles Munch, Leonard Bernstein and Hugh Ross in the preparation and performance of Brahms' "Requiem," Gershwin's "Porgy and Bess," and Berlioz' "Romeo and Juliet" at the Berkshire Music Festival at Tanglewood. He has appeared three times in season as piano soloist with the National Symphony, has shared the podium with Dr. Ifor Jones (Bethlehem Bach Choir Festivals), conducting chorus and Baltimore Symphony in Bach cantatas for the Peabody Conservatory Bach Festival, and has enjoyed the role of presidential pianist to Harry S. Truman at the White House.

In 1956, Mr. Manos founded the Washington Hellenic Choral Society and at its debut he conducted the National Symphony in the oratorio "Samson" by Handel. He is presently conducting this group in preparation for the Patrick Hayes Series in Constitution Hall; Handel's "Joshua," also in conjunction with the National, will be performed.

The Doctors' Orchestra is fortunate to have secured again the services of such an outstanding musician.

The Orchestra wishes to express its appreciation to Mutual of Omaha and to Mr. Joseph E. Jones, General Agent, in particular, for sponsoring the Orchestra for the past two years. Mr. Jones' continuing interest is graciously acknowledged.

PAGING: All Musical Doctors
Rehearsals every Thursday at 8:00 p.m.
Place: Perpetual Building Association Auditorium, Bethesda, Md.

RICHARD H. TODD, M.D., *President*
MRS. ROBERT B. HAVELL, *Secretary*
Doctors' Symphony Orchestra

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* National Association of American Composers and Conductors.

ANNUAL REPORT ON ADMINISTRATIVE SERVICES OF MEDICAL SERVICE*

During the year 1957 the administrative force working for Medical Service developed and refined the methods and procedures necessary to accommodate expansion and growth in several directions. The actual implementation of programs which were approved at the close of 1956, such as the new Surgical-Medical Contract and "Medicare" for dependents of members of the uniformed services, brought reality to our efforts to visualize the problems we would encounter in administering these programs.

The ability of any Blue Shield Plan to provide a prepayment program for physician services which will actually provide funds for a substantial portion of the medical economy is measured to a large extent by the number of people who participate in it. At the end of 1957, there were 650,613 persons enrolled in Medical Service, a net gain of 51,206 participants for the year. Of these, 170,743 were enrolled under the Surgical-Medical Contract and were thus eligible for a number of services which were not provided under the old surgical coverage, and 7,671 of these participants were protected under Major Medical coverage.

Ours is a rapidly growing operation. The enrollment report for all Blue Shield Plans for the year 1957 shows Medical Service of the District of Columbia leading all other Blue Shield Plans in the percentage of population enrolled (59.69 per cent). While a segment of the Washington area is not included in the population figure toward which our subscription figure is applied to obtain the percentage of population enrolled, we do feel that the distinction of being a leading Blue Shield Plan in the percentage of population enrolled is significant. Some states which have been considered very progressive in their development of Prepaid Medical Care Plans have enrolled less than 10 per cent of the potential patients in their states, and their programs have a minor impact upon the practice of physicians who participate in them. On the other hand, Plans which have a high percentage of the population participating in its prepayment operation have a definite effect upon the practice of physicians in its service area. They enroll a number of patients who would not otherwise be able to pay for medical care or would pay for it only in part, at best. As I pointed out last year, there are still large numbers of Government employees who are not covered under our program, and the addition of these non-subscribing individuals, many of whom have no prepayment protection of any kind against the cost of medical care, would undoubtedly swell our ranks to the position where we would be far ahead of all Blue Shield Plans in the percentage of population enrolled.

Participating Physicians. At the present time, there are 2,140 doctors of medicine and practitioners of the healing arts who are participating in Medical Service of D. C. Of these, 2,028 are doctors of medicine, 58 are podiatrists, and 54 are oral surgeons. There has been a net gain of 156 Participating Physicians in the program during the past 12 months.

During the past year the Committee on Physician Relations has given a great deal of time and attention to ways in which Participating Physicians can become more informed about Medical Service and obtain greater understanding about the role they play in its operation. The support which Participating Physicians give to Medical Service is one of the chief distinctions between our program and the coverage offered by insurance companies. Many doctors serve on numerous committees and on the Board of Medical Service, and the coöperation of physicians in all aspects of our operations represents a service to the Plan, to the medical profession, and to the community which cannot be evaluated in terms of dollars.

Claims. During 1957, our Claims Department processed 200,393 claims, or approximately 800 every working day, a 27 per cent increase in the claims load over the previous year. This increase in claims experience has been brought about to a large degree by the inclusion of new procedures under the Surgical-Medical Contract, the fact that physicians are paid directly instead of payment being made to the patient in a lump sum for the services of several physicians, and the fact that participation in a prepayment mechanism encourages the patient to seek additional treatment. The processing of an increased number of claims has brought about additional inquiries, and our Claims Department handled a load of 90,000 calls by telephone and in person during 1957. Our claims personnel is especially qualified and trained for these specialized activities and we believe that their work is accomplished with a high degree of efficiency at a minimum of expense.

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* Presented at the Annual Meeting of Participating Physicians of Medical Service of the District of Columbia, April 9, 1958.

In addition to its regular claims processing and informational functions, the Claims Department in 1957 absorbed the processing of 8,815 Medicare claims, representing a payment of $571,819 to physicians in this area, and has handled over 4,000 phone calls pertaining to Medicare claim processing. We feel that the whole Medicare program has been refined administratively to a tightly knit efficient operation which will justify the confidence of the Medical Society in asking us to serve as the fiscal administrator for this program. The Government has spent approximately 750 man-hours auditing our accounts, and they are in good order.

Despite the added complexities of their business, all Blue Shield Plans take pride in keeping their operating cost at a minimum figure in order to reserve the subscriber's dollar for the payment of claims. The operating expense of all reporting Blue Shield Plans amounted to 10.35 per cent of earned subscription income in 1957, which is well below the amount retained by most insurance companies for operating costs. There are no frills in the operation of Medical Service. The Board of Trustees receives no compensation for its services, committee members provide innumerable hours of specialized consultative assistance without pay, there are no commissions paid to salesmen or Plan representatives, and there are no dividends to be paid out to stockholders. Wherever possible, the organization's income is reserved for the payment of claims. Despite the even greater complexity of collecting from its many thousands of subscribers without the machinery of payroll deduction in the Government, Medical Service of D. C. kept its operating expense to 9.05 per cent of earned subscription income in 1957, a figure which is substantially below the average for Blue Shield Plans.

In retrospect, 1957 was a strenuous and a challenging year. A prepayment medical care plan in which payments are collected monthly from hundreds of thousands of individuals, services are provided under contractual agreement by more than 2,000 physicians, and benefits vary according to the different contracts under which a subscriber might participate, is a complex operation. We cannot help but take pride in the manner in which the administrative staff has faced up to its duties, and I am confident that they have been discharged with a high degree of satisfaction.

GEORGE B. MCGOVERN, *Manager*

ANNUAL REPORT OF THE PHYSICIANS' SERVICES COMMITTEE OF MEDICAL SERVICE*

As Chairman of the Committee of Physicians' Services, it is my pleasure to render the following report of the Committee's activities during the past year to the Participating Physicians of Medical Service.

One of the most gratifying results of the activities of the Physicians' Services Committee has been the manner in which cases have fallen into a pattern and have been reduced in number. During the past year, Medical Service acquired approximately 50,000 additional participants in the Plan, but the number of cases referred to the Committee was 12.8 per cent less than in the preceding year. We feel that the physicians are now becoming familiar with the precedents which have been established by the Committee in the past, and they now understand the processes by which payments of Medical Service claims are made. We also believe that physicians consider the settlement of these claims, in most instances, to be reasonable and just.

Another reason for the reduction in the number of cases referred to our Committee for consideration is the excellent work of Dr. A. C. Gray, Mr. George McGovern, and Messrs. Alan F. Ridgeway and Arthur B. Carpenter of the Claims Department. These men carefully review and screen all claims submitted to Medical Service, and it is mainly through their efforts that these claims are adjudicated so promptly. As a result of their outstanding abilities, it has been necessary for the Committee to review only a very small fraction of the claims submitted and, in behalf of all the Participating Physicians of

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* Presented at the Annual Meeting of Participating Physicians of Medical Service of the District of Columbia, April 9, 1958.

Medical Service, I wish to express our sincere appreciation for their excellent work.

The Physicians' Services Committee has always undertaken to approach problems in an objective manner and to condition its response to the average situation rather than to the extreme of an individual case. For instance, an individual physician might customarily charge an additional amount for treatment of a complication of a surgical procedure, whereas many other physicians would not make such an additional charge to the patient. The effect of payment by Medical Service in an individual case is to establish a precedent which will often apply to other cases of the same nature, and if Medical Service were to provide an additional allowance for a complication in such an individual situation, the Plan would soon be called upon to provide added allowances for a large number of complications for which the physician would not make an additional charge if the patient did not have Medical Service coverage. The effect of this, of course, would be to increase the cost of medical care to the patients covered under a Medical Service contract.

The development of fees for some procedures is a matter of judgment and requires detailed information. In some cases, physicians become upset because the Committee on Physicians' Services does not allow a fee which the physician feels is commensurate with the surgical problem he has encountered. Upon reviewing these cases, the Committee may find that the case was reported in extremely simple language and there was no way of recognizing the extent of the surgical problem. This is particularly true in cases of lacerations, burns, skin grafts, and other procedures for which no fixed fee is established. It is, therefore, recommended that physicians reporting this type of procedure submit a detailed report, indicating the size of the area, the length of the wound, its location, and severity. The use of such information enables the Committee to provide a fair and reasonable allowance based upon knowledge of the actual problem.

During the past year, the Committee has established a precedent of allowing additional fees for complications arising from a disease and not due to errors of technic. For example, a pelvic abscess which develops following a ruptured appendix would be considered as a complication of a disease, and an additional fee for its treatment would be allowed. However, a wound disruption following extensive surgery or postoperative hemorrhage would be considered as a complication arising from the surgery performed and, therefore, no additional fee would be allowed for the care of this condition.

Even though the Committee, since the founding of Medical Service, has refused to honor certain types of claims, some of these continue to plague it. Number one on this list is the case in which 2 surgeons are involved in the same operation when one should be competent to perform the necessary surgery. The Committee has decided in the past that only 1 surgeon should receive the full fee for the surgery performed in this type of case, or, occasionally, the Committee has decided that the fee should be divided into 2 equal parts, with full knowledge of both surgeons. The Committee wishes to recommend that when 2 surgeons are involved in any one case, there should be a frank understanding between them as to the service performed by each in the care of the patient and the fee to which each is entitled, according to the precedent established by the Committee regarding claims of this nature.

Another type of claim that continues to be presented to the Committee is that which involves extensive fees for excessive laboratory work. Such claims present a great problem, and they require considerable time in reviewing and evaluating each laboratory procedure before any settlement can be made. Since benefits are provided only for those laboratory tests which are directly related with the condition for which the patient is hospitalized, it is necessary to review each of the laboratory tests individually to determine whether or not they are directly related with the patient's condition. It is the belief of the Committee that the attending physician should not permit the residents and interns to indiscriminately write orders for unnecessary laboratory tests just because the bill for these procedures is being paid by Medical Service. It might be enlightening for the Participating Physicians to know that in some instances the bills for laboratory procedures have amounted to $1,500 to $2,000 and more. If Medical Service did not exist, the average working man would not be able to pay these fees. As a participant of Medical Service, he is entitled to and receives a great many benefits, but abuse and dissipation of the funds of the Service can occur if the attending physicians are not vigilant.

The third type of claim that continues to plague the Committee is payment for office procedures, particularly for excision of multiple moles and skin lesions. The Committee is going to recommend to the Board of Trustees that a fee scale for payment be made in proportion to the number of such procedures, for we believe there is no other way of handling these cases fairly.

In closing, I should like to say that I consider it a highly educational experience and a great privilege to have served as a member on the Physicians' Services Committee, and I wish to thank the members of my Committee who have so willingly given of their valuable time during the past year. Eight meetings were held, of an average 3 hours' duration, and altogether 166 man-hours were contributed by the members of the Committee. The men who served with me were Drs. J. Spencer Dryden, Carl Berg, G. Roland Gable, Luther Gray, Raymond T. Holden, Oscar B. Hunter, Jr., Gordon S. Letterman, Lawrence A. Rapee, Hugo V. Rizzoli, and others who served as alternate members of the Committee.

PHILIP A. CAULFIELD, M.D., *Chairman*

CENTRAL REPOSITORY FOR MEDICAL CREDENTIALS

The Secretary General of The World Medical Association announced that on July 1, 1958, the services of a Central Repository for Medical Credentials will become available to the doctors of the world. The development of such a repository has been in process for approximately 4 years. All judicious precautions will be exercised to protect the records of depositors.

During war and national uprisings, medical records are destroyed or lost. The plight of hundreds of doctors who fled from their homelands during World War II and the more recent Hungarian uprising stimulated The World Medical Association to undertake means assuring the doctor that he will always be able to prove himself medically trained and fully accredited to practice medicine. Today, many doctors are working as laborers or research assistants as a result of the loss or destruction of their original credentials and the lack of a protective service in which authenticated copies could be deposited.

Cost of Service. The life-time cost of the service on a one-payment basis to the newly graduated doctor is approximately $60.00 (U.S.A.). An actuarial schedule has been established for doctors in the various age groups. A 10-year service rate is also available.

Provisions have been effected for the depositor to add additional credentials he receives to his file in the Repository at a minimal service charge.

Credentials Warranting Repository Service. The officials of the Repository recommend that doctors deposit their credentials in a form legally acceptable in the country or countries in which they would desire to establish themselves as qualified to practice medicine. It suggests that the credentials so deposited include the official medical school record, medical diploma, and specialist credentials.

Photostatic or microfilm copies of the original credentials are recognized or coming to be recognized in an increasing number of countries. However, some countries still require authenticated copies of the original or the original record itself.

The coöperation of the national medical associations, their component local societies, the medical press, and the paramedical press is essential in developing programs of education and promotion in providing the doctors of the world with information on the availability of and the need for utilizing the service of the Central Repository.

While the fundamental basis of the medical profession is man's humanity to man, and one of the objectives of The World Medical Association is to promote world peace, the scientific education of the doctor directs his objective analysis of facts, worldwide as well as medical. The Central Repository for Medical Credentials is a necessary precaution to assure the doctor that he can always prove himself medically qualified to practice his profession should the diplomats and the governments they represent fail in their efforts to achieve world peace.

Additional information on the Central Repository for Medical Credentials is available from The World Medical Association, 10 Columbus Circle, New York 19, N. Y.

RECOMMENDED POLIOMYELITIS IMMUNIZATION SCHEDULE

The following joint statement was issued, May 22, 1958, by the D. C. Committee on Poliomyelitis, of which Dr. William F. Burdick, of the Medical Society of the District of Columbia, and Dr. Daniel Leo Finucane, Director of Public Health for the District of Columbia, are co-chairmen:

The District of Columbia could approach the goal of wiping out poliomyelitis this coming year if everyone under 40 years of age was protected with the recommended immunization with poliomyelitis vaccine. In 1957 there were 75 cases of poliomyelitis in the District of Columbia with 2 deaths. Five of the paralytic cases had received 3 doses of vaccine.

The vaccine can be given as early as 2 months of age. It is recommended that the first 2 doses be given one month apart and the third dose about 7 months after the second dose. Clinical experience throughout the United States and experimental antibody studies indicate that a high degree of protection, approximately 80 to 90 per cent, is obtained from the 3-dose schedule. The duration of this degree of immunity is at present unknown. It is believed that a booster dose would enhance and prolong this degree of immunity.

The American Academy of Pediatrics has recommended that a fourth dose should be given if it has been approximately 1 year since the third dose was received, and this fourth dose should preferably be given prior to the onset of the poliomyelitis season.

It is believed that under certain conditions a fourth dose of the vaccine should be given. When there is a delay between the first and second doses of approximately 1 year, the series should be started over by giving a total of 4 doses.

A fourth dose should be considered in certain situations, e.g., when a child is going to a summer camp and will be associated with a new group of children, or when persons are planning visits in areas of high poliomyelitis prevalence.

A fourth dose given 1 year or more after the third dose and prior to the poliomyelitis season will undoubtedly appreciably increase the degree of protection.

At the present time the routine policy of the Department of Public Health is to concentrate its efforts and resources to provide at least 3 doses to all of the population under 40 years who cannot afford to receive such immunization from their private physicians.

THE METROPOLITAN POLICE AND THE MENTAL PATIENT

During the course of an active medical practice, the Washington physician may on occasion be faced with situations in which the services of the Metropolitan Police are required in order to transport a psychotic patient to the Psychiatric Division of D. C. General Hospital. A recent directive of the Metropolitan Police Department (General Order No. 2, Series 1958) contains considerable information which may be useful to the physician confronted with such a psychiatric emergency. The following relevant excerpts are being herewith reprinted (with permission of the Metropolitan Police Department) at the request of the Committee on Mental Health with the suggestion that they be filed for future reference.

Zigmond M. Lebensohn, M.D.
Chairman, Committee on Mental Health

I. There are several methods provided by law for admission of persons allegedly insane or of unsound mind to D. C. General Hospital for mental observation:

A. Apprehension and detention by police officers: (The Act of Congress approved April 27, 1904—so far as it relates to police officers—has not been repealed. Opinion—Corporation Counsel, March 27, 1939.)

Paragraph 1. Apprehension without warrant in public places:

Any member of the Metropolitan Police . . . is authorized and empowered to apprehend and detain without warrant any insane person or person of unsound mind found on any street, avenue, alley, or other public highway, or found in any public building or other public place within the District of Columbia.

PROCEDURE TO BE EMPLOYED IN CONNECTION WITH PARAGRAPH 1:

(a) Allegedly insane persons shall be transported to D. C. General Hospital at once. When a woman is to be charged with mental observation, the officer shall contact the Woman's Bureau, with a view to having a member of that Bureau present during the time the person is taken into custody and en route to the hospital. In the majority of these arrests, the Woman's Bureau will take entire charge. A person charged with mental observation shall not be detained unnecessarily in a police precinct.

(b) The arresting officer shall execute an original and one copy of P.D. 162 (White Commitment Slip), which is a request for admission and observation of the allegedly insane person. On the back of this form, the officer shall make a full report of the incidents leading to the apprehension, such as: "About 1:30 a.m., Monday, April 24, 1949, I observed an individual later identified as William M. Doe, white, 26, of 1326 Stefon Drive, N.W., in the bus terminal at 14th Street and New York Avenue, N.W., running about in an excited manner, using an old watch as a monacle and unable to identify himself or his place of residence." The original P.D. 162 shall be delivered to the hospital simultaneously with the person.

(c) After placing the person in D. C. General Hospital, the officer must notify the relatives or close friends of the person, and he shall, if the Mental Health Commission is open, immediately proceed to that office and file the remaining copy of P.D. 162 and execute other necessary papers. If the office is closed, he shall take this action the following morning. If a Sunday or legal holiday, then he shall take this action not later than noon of the next succeeding day which is not a Sunday or legal holiday. At the time the officer makes out the necessary papers in the office of the Commission on Mental Health, he must furnish the names, addresses and relationship of relatives and the names and addresses of witnesses. If further action on the part of the officer is necessary, after an investigation and certification by the doctors at D. C. General Hospital as to the insanity of the person apprehended, the officer will be notified as to when and where to appear.

(d) The apprehension and detention of an allegedly insane person shall be recorded on the arrest records at the police precinct under the title, "Mental Observation."

PARAGRAPH 2. Arrest at other than public places without warrant:

The Chief of Police of said Metropolitan Police is authorized to order the apprehension and detention, without warrant, of any indigent person alleged to be insane or of unsound mind or any allegedly insane person of homicidal or otherwise dangerous tendencies found elsewhere in the District of Columbia than in public places whenever two or more responsible residents of the District of Columbia shall make affidavits (P.D. 64-A, obtainable at any police station), setting forth that they believe the person therein named to be insane or of unsound mind . . . and that the preservation of the public peace will be imperiled and the commission of crime rendered probable, and that such person is a fit subject for treatment on account of his or her mental condition: PROVIDED, however, . . . that 2 physicians shall certify (P.D. 64-B, obtainable at any police station) that they have examined the person alleged to be insane or of unsound mind, and that such person is a fit subject for treatment on account of his or her mental condition.

PROCEDURE TO BE EMPLOYED IN CONNECTION WITH PARAGRAPH 2:

(a) Often officers are called to a house or an apartment (private property) and requested to remove an allegedly insane person. All officers must keep in mind the fact that, in such a case, there is a legal obstacle in the way of the police entering a private home and transferring a patient to D. C. General Hospital when the family has called upon them to do so. The only procedure which may be followed by the police in entering a private home or an apartment for the purpose of transferring a mentally sick patient to D. C. General Hospital is when the Police Department is furnished with affidavits as set forth herein, or, if a felony had been or was about to be committed.

(b) The affidavits referred to are P.D. 64-A and 64-B (Affidavit of Insanity-Resident, and Certificate of Insanity-Physician). These forms shall be kept in each police station to be furnished to citizens when they request such forms for the purpose of having mentally sick persons transferred to D. C. General Hospital for mental observation. Citizens shall be informed that the Physician's Certificate, P.D. 64-B, must contain the doctor's conclusions; otherwise, without this additional explanation, the certificate will not be accepted by the U. S. District Court. After the forms have been properly executed or certified to, as the case may be, and then used by the officer to apprehend and detain a person in D. C. General Hospital, they shall be filed with the Commission on Mental Health by the officer who has taken the allegedly insane person into custody. These affidavits and certificates are not to be left at D. C. General Hospital under any circumstances; they are to be kept by the officer and turned in at the Commission on Mental Health.

(c) The Corporation Counsel has in the past advised the Police Department that the police would be justified in entering a private dwelling if a felony had been or was about to be committed. So then, if the person alleged to be insane is quiet and peaceful in his home, even though the officer is there by lawful invitation, he should not remove that person without the necessary affidavits and certificates. On the contrary, if the allegedly insane person is violent and disturbed, perhaps threatening people, so that crime is rendered probable, even disturbing the peace and quiet of the neighborhood, using profane and indecent language which can be heard on the street, or again, there is a situation in which a person is attempting suicide, or has attempted suicide, and is in need of medical attention, the question the officer must answer is, "What would a reasonable and prudent man do in these circumstances?" The officer should act for the welfare of the patient, and, if he does, who is there to complain?

(d) Cases have arisen in which St. Elizabeths Hospital has been required to release insane patients because of some technicality in the law, and the Hospital has merely called the police, giving them the hour of discharge, and an officer has been sent to the gate in each case to apprehend the insane person as soon as he or she arrived on public space.

(e) If, then, a situation is acute and the circumstances justify such procedure, the officer may suggest to relatives or friends that, if by some pretext they can induce the allegedly insane person to accompany them on to public space, the officer will take charge of the situation there.

(f) The apprehension and detention of an allegedly insane person, in accordance with Paragraph 2, shall be recorded on the arrest records of the police precinct as "Mental Observation." The complainant shall be one of the persons executing an affidavit, preferably a member of the family, and proper data shall be entered on the arrest book to indicate the arrest was in accordance with this provision of the law. P.D. 162, White Commitment Slip, shall not be executed.

(g) In order to complete the admission of a person to the psychiatric service at D. C. General Hospital, under the provisions of Paragraphs 1 and 2, the officer shall notify a responsible member of the family to go to the Interstate and Mental Health Services Unit of the Medical Assistance Division, located on the second floor in the West Building of the Psychiatric Division at the D. C. General Hospital, 19th and E Streets, S.E., between 8:00 a.m. and 4:00 p.m., Monday through Friday. Instruction sheets, P.D. 64-C, containing this information, have been supplied each unit of the Department and shall be issued whenever a person requests affidavits (P.D. 64-A and 64-B) for having a mentally sick person transferred to D. C. General Hospital for mental observation.

B. Voluntary Admission:

A resident of the District of Columbia (citizen) may apply personally and obtain permission to enter either D. C. General Hospital or St. Elizabeths Hospital for examination, observation and treatment.

D. C. General Hospital—The law provides: "Any person believing he has, or is about to, become mentally ill may, upon his own written application, in the discretion of the chief psychiatrist of D. C. General Hospital, enter D. C. General Hospital for observation and place himself subject to examination and commitment as hereinafter provided." (D. C. Code, 1951 ed., Title 21-310)

Persons desiring urgent admission shall apply at the Admitting Office, D. C. General Hospital, 19th and C Streets, S. E., and execute the necessary forms. Those desiring planned admission shall apply at the Interstate and Mental Health Services Unit, Medical Assistance Division, West Building of the Psychiatric Division, D. C. General Hospital, 19th and E Streets, S.E.

Often application is made on behalf of another. The officials of the Medical Assistance Division must be more exacting. They require assurances of the necessity for admission, and, secondly, that the patient will make voluntary request at the time of arrival. Often permits have been obtained for others, only to have the patients refuse to enter upon arrival. This is the Voluntary Admission—the patient cannot be compelled to enter against his or her will, without authority of law.

St. Elizabeths Hospital—The law provides: "That (a) the Superintendent of Saint Elizabeths Hospital may receive therein as a boarder and patient any adult person who appears to the Superintendent to be in need of mental care and treatment in a mental hospital, and who makes written application therefor and who is determined by the Superintendent to be mentally competent to make such application. . . " (Public Law 737 - 80th Congress)

Persons desiring admission under the provisions of the above are required to have resided in the District of Columbia for the past 12 months. Application is made at the Interstate and Mental Health Services Unit, Medical Assistance Division, West Building of the Psychiatric Division, D. C. General Hospital, 19th and E Streets, S.E.

II. Use of the White Commitment Slip (P.D. 162):

P.D. 162 (White Commitment Slip) shall be used in every case in which a person is apprehended for "Mental Observation," except when affidavits are the basis of the apprehension. The use of P.D. 162 indicates that the officer is of the belief the person being admitted is mentally deranged. In a case in which the white commitment slip is used, the person being admitted to D. C. General Hospital shall be charged with "Mental Observation" at the unit to which the arresting officer is attached and the arresting officer shall file the necessary affidavits or other papers in compliance with instructions contained in this order. All persons charged with "Mental Observation" and transported to D. C. General Hospital for admission shall be taken to the Main Admitting Office and processed. If violent or agitated, they shall not be removed from the police vehicle, but the doctor on duty in the admitting office shall be notified and he will respond to make an examination of the prisoner. The prisoner shall then be transported to the South Building (Psychopathic Ward) and processed.

When a person is receiving preliminary treatment at a hospital after an attempted suicide and a request is made upon this Department to convey that person to D. C. General Hospital, or when police are called to the scene of a reported suicide attempt and it becomes necessary to have that person admitted to D. C. General Hospital, the white commitment slip shall be made out and the person charged with "Mental Observation."

Officers responding to the scene of an attempted suicide or investigating one shall search for and take possession of medicine bottles, containers, etc., the contents of which were taken internally by the patient, and forward same to the hospital, where treatment will be administered via the officer who has the patient in custody. It is important to the treating physician to have knowledge of the ingredients of the poison or agent taken and this can be ascertained from the label or, in the case of a prescription, by contacting the drug store preparing same. It shall be the responsibility of the transporting officer to retain possession of the evidence and turn same over to either members of the Homicide Squad responding to the hospital or the officer handling the case.

In a mental observation case, in which the patient is being transported to D. C. General Hospital in an ambulance or vehicle other than one manned by police officers, an officer shall accompany the prisoner to the hospital for custodial purposes. He shall remain with the prisoner until such person is lodged in the South Building (Psychopathic Ward).

Affidavits shall then be made, based upon the information received at the hospital where preliminary treatment was received or at the scene where police have responded. The officer shall notify 1 relative or 1 witness to appear before the Commission on Mental Health at the time he makes out the necessary papers at the Commission.

When an allegedly insane person is brought to D. C. General Hospital by ambulance and there has been no previous investigation made by an officer of this Department, and the officer detailed to D. C. General Hospital from this Department has insufficient facts brought to his attention while investigating the case to enable him to believe the person is of unsound mind, he shall not make a white commitment slip charging the person with "Mental Observation." However, if, after talking with the doctor, the nurse, witnesses and the patient, the officer is of the opinion that the patient should be admitted, then he shall commit the patient to the hospital on a white slip, file the necessary papers with the Commission on Mental Health in conformity with instructions contained herein and take other necessary action.

When an officer from this Department has previously investigated a case, but, at the time of the present investigation he does not have sufficient information to enable him to lodge the charge of "Mental Observation," and it later develops at the hospital that such a charge should be entered, then it shall be the responsibility of the officer detailed to D. C. General Hospital who witnesses the actions of the patient to place the charge of "Mental Observation" and handle the case in accordance with instructions contained herein.

III. Use of the Blue Slip (P.D. 162-A):

P.D. 162-A (Blue Slip) shall be used in every case in which an officer has reason to believe that a person charged with an offense should receive medical treatment or be admitted to D. C. General Hospital for treatment, such as in the case of an alcoholic, a narcotic addict, a prisoner suffering from injuries and any others requiring immediate medical or surgical attention. A prisoner conveyed to D. C. General Hospital on a blue slip shall be taken to the Main Admitting Office and processed. If violent or agitated, he shall not be removed from the police vehicle, but the doctor on duty in the Admitting Office shall be notified and he will respond to examine the prisoner. The prisoner shall then be transported to the South Building (Psychopathic Ward) and processed.

Regardless of whether a white or a blue slip is used, the officer filling out the slip must make an entry on the reverse side of the form, giving sufficient facts so that hospital authorities will be clearly aware of the reason for the admission of the patient to the hospital. Police officers shall coöperate in every respect with hospital authorities.

Property of insane persons shall be handled in accordance with the Department order on property.

By direction of the Chief of Police:

Howard V. Covell
Deputy Chief of Police,
Executive Officer

CORRESPONDENCE

Washington, D.C., May 3, 1958

To President Watts:

I read with considerable interest your recent message concerning the influence of malpractice claims upon the surgeon, and with an abiding interest the comments concerning aortography. I infer that reference to translumbar aortography is made.

In recent months, the topic of aortography has been the subject of many articles, in some instances reporting undesirable reactions, and, as all know, the subject of a lengthy malpractice claim which was won by the plaintiff, but later reversed in an appellate court. Closer examination of some of the undesirable reactions may often reveal some glaring facts: that an aortogram need not have been done in every case; that an excessive amount of contrast material had been used; or that even though an aortogram was desirable, certain clinical contraindications may have existed (Leriche and Morel: Ann. Surg., 1948, **127,** 193). Nevertheless, even with carefully controlled procedures, an occasional mishap occurs. And this is true of all procedures, however innocuous.

The word aortogram loosely connotes a translumbar puncture of the abdominal aorta with suitable needle and instillation of contrast material. It should be noted that there are many ways of performing an aortogram, and it would be well to specify the particular technic employed when speaking of aortograms, e.g., translumbar, transthoracic, retrograde carotid, etc. Each carries its own indication and its own difficulties.

When the proper indications exist, and it is important to know the site, size and extent of the lesion, and the condition of the contiguous and collateral vessels, a translumbar aortogram is extremely helpful to the surgeon and internist alike. It can be the one crucial clinical aid in determining management of a given case.

It should be further noted that one of the original objections to translumbar aortography was the fear of hemorrhage from the aorta due to puncture by the needle. To date, these fears have been shown to be without basis in fact.

When a translumbar aortogram is performed to delineate obstruction (and this is one of the most common indications) one should be aware of the possible underlying pathophysiology. As the block in the aortic lumen develops, there is a concomitant development of collateral vessels to handle the "runoff." Symptoms are proportional to the amount of block and to the adequacy of the collateral vessels to circumvent the block. When contrast material passes through the smaller vessels, such as the renal arteries and iliac arteries, there is a temporary period of vasospasm. This same vasospasm which is thought to be on an irritative basis may also cause enough flow-stasis in the residual aorto-iliac lumen or the residual ilio-femoral lumen to cause thrombosis and precipitate an acute emergency. This somewhat resembles the normal progression of events in some cases,

(Continued on page 330)

On the Lighter Side

Have you ever sat quietly in a boat in calm water with a fishing line in your hand and watched the merchant tankers and the passenger Goliaths on the horizon steam out to sea into what seems to you to be an unknown world of adventure? Have you been down to the wharves, in a seaport town, and stretched your neck looking up at the shiny sleek sides and the battered hulls of the ships that go out to sea? Have you wondered what it would be like being a ship's surgeon on one of those ocean-going monsters? Let me tell you a story—a real story, as related to me by Dr. James A. Gannon from his personal experience.

A few months ago Dr. Gannon read an article in a medical magazine suggesting that life at sea as a ship's surgeon was interesting and fairly remunerative. The article listed 10 ship companies that employed medicos in good standing. Dr. Gannon is a widower of 9 years' standing. His children are married and have families of their own; therefore, he decided to try a new experience and he applied for a position as a ship's surgeon. Within 2 weeks one of the companies to which he applied offered him a position. He accepted.

Before shipping on as ship's surgeon there were credentials to show in order to obtain seaman's papers. These credentials were as follows: (1) your original birth certificate; (2) the original diploma from your medical school (no photostats allowed); (3) the original certificate of internship; (4) the original license to practice as given by the state; (5) the state registration certificate; (6) military discharge papers if any; (7) one's narcotic license; (8) 8 passport photos—all full face without hat or cap; (9) character references—2 must be from other physicians or your recent employer indicating moral, sober, honest traits besides that of being a good doctor; and (10) completed U. S. Coast Guard forms supplied through the ship company's offices.

Then there was the little matter of uniforms. One must have 4 uniforms. One set must be Navy blues and 3 sets Navy whites, with mess jacket, shoes and cummerbund to match. Man! Those threads could really put a crimp in the folding cabbage!

Dr. Gannon also reminded me that one must sign up for a minimum of 3 months' tour of duty and pay all traveling expenses to and from the port of embarkation. The pay was $600.00 per month with maintenance, except laundry. This latter item could be a problem, unless you piled it up in a corner until you hit the next port of call or decided to risk dishpan hands by dunking the duds in suds in your own little bucket.

Dr. Gannon met all the requirements, and in anticipation of a new and exciting career burned all his bridges behind him, including his home, office, practice, and patients. He then reported to the office of the shipping line on March 17, 1958, at 9 a.m. as required. He was processed through the female secretarial help without one word of greeting from the Chief Medical Officer, whom Dr. Gannon could see lounging at his desk paring his nails.

Dr. Gannon was given a white coat after his credentials were passed upon and he was directed to the examining room, where he was looked at, scanned, tapped, and listened to by a sober-faced doc who also was a ship's surgeon. There was no cheery hello or how-do-you-do from this physician, probably because he was obliged to examine up to 50 crew members a day when his ship was in port while his brother lay officers were allowed to have fun on the town.

The day before the ship's departure it was required of a new ship's surgeon to be briefed by the U.S. Public Health Service. If you could prove beyond a reasonable doubt that you were born alive and were not a Communist, you were allowed to take the second step, namely, go to the Custom's Office in another part of town to get various documents stamped and signed—providing the stampers and the signers were in their offices and not out playing golf on the day that you arrived footsore and weary.

The *pièce de résistance* was epochal! The final permission to sail had to be given by the U. S. Coast Guard Station out on Staten Island. Now, if you ever had to find a specific building on Staten Island, that is bad enough—but to find it in a snowstorm is like trying to escape from Siberia. Dr. Gannon had this to do, and do it he did, even though the bus was not running and the cab driver dumped him out at the wrong place. Finally he found the building amongst the snowdrifts, and wearily he dragged himself up the iron staircase that was attached precariously to the outside of the building. Once inside the Commanding Officer had to be convinced that this intruder on his reveries was Dr. James A. Gannon and not some impostor. When this feat was performed satisfactorily to all concerned, the C. O. instructed Dr. Gannon in the *practique*. Now, this is not a new dance craze but bona fide instructions in how to radio the U. S. Government port of entry 24 hours before the ship nudges into her berth, reporting the presence or absence of communicable diseases aboardship. When the lessons were completed, Dr. Gannon was given official permission to sail with his ship on the ebb tide.

The cabin to which Dr. Gannon was assigned was one of those modest little jobs with no porthole. In fact, it was so small that when Dr. Gannon wished to open one of the dresser drawers he had to open the cabin door to avoid acquiring a crushed liver.

The surgeon's office was located one deck below his cabin and was a converted barber shop. It was small. There was a swivel chair, a tiny table, and an iron stool for the patient to sit on. On one wall there was a built-in glass cabinet with a locker attached. In this were the instruments and medications. There was a 5-year supply of athlete's foot ointment; enough penicillin to jab every man-jack and woman-jill in each cheek every time they took a turn around the deck. There were hundreds of adhesive strip bandages; diarrhea mixtures sufficient to control the runs in 2 patients; 10 hypo syringes with about 40 2-inch needles. There was cough medicine to last 1 patient 1 day, and pills for seasickness sufficient to curb the qualms in 2 patients. There were 2 bottles of liquid laxatives, and a small bottle of pills for same. One rusty oxygen tank with a beat-up, cracked, deflated mask was found in the crew's quarters, and 1 workable sterilizer was found in the office.

In the cabinet there were also enough curved and straight clamps to do a radical mastectomy but no scalpel to make the incision. There were 1 giant-sized vaginal speculum suitable for a female elephant and 1 old barber's wash-basin with half the enamel chipped off. There were a dozen rolls of bandages, a superabundance of kidney basins, and 1 old cork that looked like it had come from a gin bottle. This was the limit of the medical supplies and equipment; therefore, no passenger or crew member dare indulge in skin cuts or lacerations, heart attacks, broken bones, retention of urine, or rectal abscesses. There were no antiseptics such as iodine or alcohol and no dabs of cotton with which to apply them.

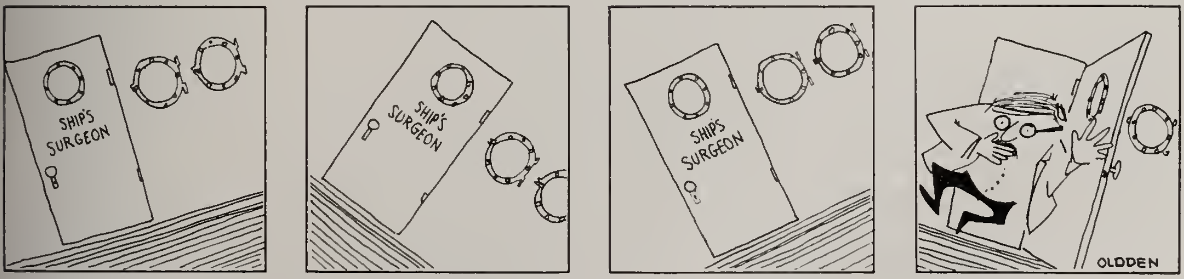
On boardship there were 2 office hours daily. The bill-of-fare was excellent and the cruise was to the Caribbean area with many ports of call. The ship carried 33 passengers and 58 crewmen. The trip was uneventful except when the ship encountered storms and heavy seas off Cape Hatteras. During this time the roll of the ship was so severe that one could not stand erect, and the ship's surgeon was a very busy fellow between treating his patients and running to the rail.

There was a swimming pool on deck exclusively for passengers and the usual Captain's Table for select diners picked from among the passengers. Of course, the ship's surgeon was not allowed any of these privileges, but, according to Dr. Gannon, he was a combination hotel doorman (better class) and a clerk in a drugstore.

If you have a hankering to sail the seven seas as a ship's surgeon, please talk to Dr. Gannon before signing up. It will be enlightening, to say the least.

J. EARL KADAN, M.D.

Clinical Trials*



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* Reprinted from *Scope Weekly*, courtesy The Upjohn Company

CHARTING A COURSE FOR PROGRESS IN BLUE SHIELD*

IRA C. LAYTON, M.D.

Trustee, Surgical-Medical Care, Kansas City, Missouri

In order to give form to my comments today, I would adopt a phrase from the *Wall Street Journal*, the title of its regular column, "Review and Outlook"; and under each of these headings, I would briefly discuss my own opinions in those areas which I feel are most important to Blue Shield today:

1. Competition
2. Public reactions
3. Professional attitudes.

If my comments at times seem blunt and painful, it is perhaps because I am like the farmer who sold a fine jackass to his neighbor. At the time of the sale, the virtues of this animal were extolled, chief of which was his response to gentle words and kindness. The following day the farmer was called by his neighbor who explained that in spite of all of his gentle words and kindness he had been unable to make the jackass work. The farmer promptly went to his neighbor's aid, and taking a singletree off the wagon, hit the animal a tremendous blow across the nose, saying, "I forgot to explain to you, before the ;entle words you have to get his attention." I hope hese comments will draw attention to the gentle ords of the speakers who follow.

COMPETITION

Competition has, in recent years, become a major problem in Blue Shield. We find ourselves on all sides losing, or threatened with the loss of, so-called "blue chip accounts" for a multitude of reasons. Commercial insurance companies are offering their products at rates comparable to or lower than those offered by Blue Shield. They are willing to tailor-make their benefit schedules to suit the economic potential of the purchaser, and, in addition, they are willing to offer uniform benefits on a Nation-wide basis. Much has been said and many words written concerning the successes of Blue Shield since its inception some 15 years ago. One cannot deny the fact of its growth in terms of individuals covered and contracts sold; nor can one deny the fact of the benefits offered and the expansion of those benefits into many areas thought to be uninsurable. Such growth can only be the result of the offering of a superior product in answer to public demand. Lest we become too inflated with retrospective observation of our successes, should we not realize that these successes occurred, for the most part, with money plentiful, demand high, and in the absence of competition?

The "hard sell" of commercial firms has only begun to make itself felt. Blue Shield, it is true, has pointed the way to the success of prepaid medical care. Unfortunately, purchasers in this field, as in others, are less concerned with who originally merchandized the product, and are more concerned with price and quality of their purchase. Many of you, particularly among the trustees represented here, may not be aware of the extent to which commercial insurance companies are competing with Blue Shield for high-grade contracts and for support of the medical profession. I should like to quote from a letter received shortly over 2 months ago by a prominent member of the medical profession in my area: "One of the most pressing problems before the insurance industry today is the difficulty we are having in controlling spiraling loss ratios on health insurance. The Health Insurance Council is asking for volunteers in the program to strengthen communications between the insurance industry and the medical profession at local levels. This is being done through the establishment of state committees of insurance people. These committees are designed to work with doctors and hospitals with respect to hospital admission plans, state surgical plans in a few states, forms, and in general to make an effort to disseminate information that might tend to strengthen communications through all concerned. It is my pleasure to act as chairman of this committee for our state. Your name was given as a person specifically recommended for our committee. Yesterday I spent the morning with some of your good friends, and they felt that no one would be better qualified than yourself to assist us."

I am sure that many such letters have been sent to prominent members of the medical profession in various communities. The appeal of such a letter is obvious. The intent is perhaps less so. Additional correspondence from this insurance executive to the physician outlined the laudable aims of coöperation with groups concerned with health services, considering means of improving the effectiveness of voluntary insurance, and dissemination of information concerning the extent and nature of health insurance coverages and related matters. Improved relationship between insurance companies and physicians was obviously an intent, one of the goals being to standardize reporting forms—a very desirable step, particularly from the aspect of the busy physician. I am sure I may have overlooked the point, but nowhere in the literature did I see that reserves were being set aside to enable these commercial firms to provide their product at reasonable expense to poor-risk and aged groups.

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* Delivered, April 29, 1958, at the 1958 Annual Conference of Blue Shield Plans, held in Chicago, Illinois.

Such appeals unquestionably will have their effect on prominent members of the medical population. The flattery involved in seeking their counsel and the stated intents, which are certainly desirable, will be attractive to almost any physician. It will be difficult to remember that profit still must be a major motive.

Public Reactions

Let us turn now to public attitudes toward Blue Shield in recent years. As Blue Shield originated, the public had no basis on which to compare the benefits provided. They only knew that a substantial portion of the physician's fee was often paid by the insurance they carried at a nominal annual premium. They realized their desire for budgeting of health care was at least in part accomplished. As the number of subscribers increased, it was inevitable that instances of dissatisfaction would increase also. Continued inflation and spiraling health care costs have necessitated rate increases, usually with increased benefits. Unfortunately, the subscriber is ill equipped to recognize the value of such benefit increases. The average layman still thinks of illness in terms of 1 physician, 1 patient, and 1 treatment. The availability of additional benefits for services of anesthesiologist, pathologist, radiologist, and any additional number of specialty-ologists is not well appreciated until the bills are assembled and the limitations of their contract are apparent. I am told by the head of our Sales Department that they have yet to sell a contract on the basis of pre- or postoperative medical care.

Dissatisfaction and mistrust are common from other sources. The patient whose Blue Shield contract 10 years ago entitled him to service benefits was very well satisfied. His increased income in these inflationary times has placed him well above such service benefit levels; and when additional substantial charges are made, he finds it difficult to understand why Blue Shield does not now pay the bill as it did 10 years ago. Could it be possible that our service income levels or the size of indemnity fee schedules may have lagged behind the times? Not infrequently, patients whose illness involves unusual surgical procedures have found that commercial fee schedules exceeded those offered by Blue Shield. They are not in a position to recognize that for more common ailments the reverse is true. Unquestionably, instances occur, whether through intent or misunderstanding, in which apparently excessive fees are charged in the light of the patient's ability to pay. Fortunately, these are rare. But when the subscriber turns to Blue Shield, "the doctors' plan," for correction or arbitration of his presumed injustice, he will probably receive, at the most, courtesy and implied sympathy. Human nature being what it is, those who consider themselves wronged speak loudest and longest, and the "agin-ers" inevitably have the largest audience.

Professional Attitudes

What can be said, in review, of our professional relations? At the very least, one must admit, they have been sadly neglected during Blue Shield's period of rapid growth. Failure to keep a large number of the medical population informed has created the majority of the problems we now face. Why is the enthusiasm of physicians working with Blue Shield not shared by others less intimately associated and less informed? The forces which served as major stimuli to the development of Blue Shield plans have. in the eyes of many members of the profession, receded in their importance. Prosperity has eliminated. in the eyes of many physicians, the need for prepaid health insurance. The outcome of recent elections have led the uninformed physician to believe that the successors of Messrs. Wagner, Murray, and Dingle are relatively impotent. We are recently learning through Medicare, vendor legislation, and the Forand Bill that government intervention in the practice of medicine has in no way been abandoned by some of our legislators.

In too many instances, there has been little turnover in the personnel of our boards of trustees and officers. Those who have done these jobs for many years are quite rightly looked upon as best qualified to continue them. Unfortunately, this does not lead to increased understanding on the part of other members of the profession. Too many of our boards are fundamentally self-perpetuating and, for good and obvious reasons, fear the loss of membership trained through the years to meet problems as they arise. Blue Shield, in its efforts to meet the demands of the public, has successfully explored many areas previously considered uninsurable. Without adequate explanation to the Participating Physician, these explorations have the appearance of encroachment on his individuality and the free practice of medicine. Lack of knowledge of all the circumstances leading to these changes has inevitably led to mistrust and suspicion.

What, now, is the outlook in each of these areas? Let us start again with competition. Here I may speak freely, for I have neither background nor experience to speak wisely. It seems to me that this, above all other problems, is one requiring the training and experience of our Plan directors and their skilled personnel. It is apparent that the challenge of commercial companies' "hard sell" must be met, or we shall be left with aged and poor-risk groups, and shall price ourselves, of necessity, out of the market. It has been the practice in many areas to sell Blue Shield on an "all-or-none" basis. There are many facets to this problem, not all of which are known to me. But it would appear that if the purchaser has only a certain number of dollars to invest, we should be prepared to offer a quality product at the price he can pay. This should be particularly true in large group contracts with a large element of management contribution. Such sales, however, cannot be made surreptitiously. The limitations of any such scaled-down contracts must be made clear to all concerned. In doing so, we may find that additional funds will be made available to purchase a larger share of the package we offer. To some extent, it may be necessary to abandon the principle of community rate. Experience rating is already part of normal practice, and is expected by those whose groups carry little risk. Means must be found to convince industry and labor of the necessity of contributing to the cost of making health services available to low income, high-risk groups. They must be made to realize that the solution of the community medical care problem by voluntary means may mean the preservation of free enterprise. Finally, we must redouble our efforts to provide a reasonably uniform national package without total loss of local control.

Improving the relationship between Blue Shield and the public it serves can be accomplished only through the passage of time. Clear delineation of the limitations of the contract purchased will be helpful. Improved rapport between the Medical Society's Grievance Committee and Blue Shield may solve some minor but sticky problems. A constant and unceasing barrage of information must be disseminated explaining utilization, labor costs, and other major factors which contribute to increased rates. Similarly, the public must be made to understand the need for broad benefits if they are to have the protection they request.

As I said before, improved professional relations and professional understanding will eliminate many of our problems with competition and public complaints. A year ago we were all agreed that doctors do not read their mail. To quote from John Foster's presentation of February last year, "Some systematize their mail by having the girl place it in 3 piles, first class mail, second and third class mail, and the journals. Then they read none of it. Others read none of it without any system at all." It is also agreed, I believe, that contact between physicians and professional relations departments is helpful and desirable but does not provide the ultimate in results. I am convinced that the only successful professional relations program can be carried out by word of mouth from doctor to doctor. This necessitates a program of intensive training of a few physicians, through the medium of board and committee activity, so that facts may be carried to hospital coffee rooms and lounges where they will be heard by other members of the profession. It necessitates our risking turnover of membership on our boards of trustees and on important committees so that additional physicians may become better trained and may better understand Blue Shield problems. Ad-

(*Continued on page 330*)

DR. STUBBS NATIONAL CHAIRMAN OF BLUE SHIELD ORGANIZATION

Dr. Donald Stubbs was elected Chairman of the Board of Directors of Blue Shield Medical Care Plans (the national Blue Shield organization), April 30, 1958, during its Annual Conference in Chicago. Dr. Stubbs succeeds Dr. Norman A. Welch, of Boston, Mass. There are 73 Blue Shield Plans with a total enrollment of more than 40 million persons.

Dr. Stubbs has been actively engaged in Blue Shield operations since 1950, when he was first named to the Board of Trustees of Medical Service of D. C. Two years later he was elected President of Medical Service, an office he still holds.

Each year since 1955 Dr. Stubbs has been elected representative to the national organization by the Blue Shield Plans in District V, which comprises the District of Columbia and 6 nearby states. In 1955 he was appointed Chairman of the Blue Shield Plans' Committee on Government Relations and he presently represents Blue Shield on the Government's Advisory Committee on Dependents' Medical Care.

Dr. Stubbs holds three degrees from George Washington University, A.B. (1929), A.M. (1931), and M.D. (1932). He has served on the faculty of that institution in various capacities since 1929 and is presently Clinical Professor of Anesthesiology. He is head of the Department of Anesthesiology and Chief of the Executive Staff at Doctors Hospital; senior attending anesthesiologist at the Washington Hospital Center; consulting anesthetist to Walter Reed Medical Center and to the Clinical Center of the National Institutes of Health.

As a member of the Editorial Board of the MEDICAL ANNALS, he has contributed to the Society's journal many scientific articles and editorials, as well as numerous editorials relating to socioeconomic problems.

News and Personals

MEETINGS

The Sixth Symposium on Antibiotics, sponsored by the journals *Antibiotics and Chemotherapy* and *Antibiotic Medicine & Clinical Therapy,* will be held on October 15, 16, and 17, 1958 at the Willard Hotel in Washington, D. C.

So that contributors to the 1958 Symposium will have ample time for preparation, the following information is presented:

Registration fee is $1.00 per person.

Three copies of an abstract of no more than 200 words must be submitted no later than September 1, 1958. The abstract should explain briefly not only what was done in the study but the results obtained and conclusions.

The original manuscript and one copy must be submitted not later than September 15, 1958. This will allow the Program Committee to make a better choice of material for presentation, and facilitate earlier publication of the "Antibiotics Annual 1958–1959."

Manuscripts must contain new, previously unpublished material. They must be typewritten, double spaced, and only on one side of 8½ x 11″ paper. No more than 6 illustrations should accompany each manuscript. Glossy photographs, no larger than 8½ by 11 inches, of all illustrations should accompany the copies of the manuscript.

Bibliographies should conform to the style of the AMA's Quarterly Cumulative Index Medicus. Generic names of drugs should be used throughout the manuscript except that the first time the drug is mentioned the trade name may be referred to in a footnote.

Please submit abstracts and manuscripts to Dr. Henry Welch, Director, Division of Antibiotics, Food and Drug Administration, U. S. Department of Health, Education and Welfare, Washington 25, D.C.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia, at its regular session, April 28, 1958, discussed the matter of procedure for selecting future recipients of the **Davidson Award.** On February 25, 1957, the Board voted to change the Davidson Lecture to the Davidson Award on the basis of papers published each year in the MEDICAL ANNALS. It was agreed at that time that the procedure to be followed in selecting the recipient be decided at a later date. A tentative procedure was used in selecting the recipient of the Award for 1956. The following criteria submitted by the Editor of the MEDICAL ANNALS, Dr. Wallace M. Yater, were approved: originality, value as a contribution, timeliness, and quality of presentation. The Board also accepted Dr. Yater's proposals that competition be open to members only, excepting members of the Editorial Board. Consulting Editors are eligible to compete for the Award. No restriction is placed on the number of times a member is eligible for the Award.

Although the next **George M. Kober Lecture** will not be delivered until 1959, when the Society has the privilege of choosing the Lecturer, the Board decided to make its choice now in order to give the Lecturer plenty of time to prepare his paper. The name of **Dr. Charles A. Hufnagel,** Professor of Surgery and Director of the Surgical Experimental Laboratory at Georgetown University School of Medicine, had been submitted to the Board and the Board approved the selection. Dr. Hufnagel has won international recognition through his research and new technics in the field of heart surgery.

Chairman Ramsey proposed that the Chairman of the Committee on Public Information be invited to attend Executive Board meetings in order to keep abreast of Medical Society activities and policies. His suggestion was taken favorably, and Dr. George Maksim, Chairman of the Committee on Public Information, will be invited to attend Board meetings for the remainder of 1958.

President Watts submitted the following nominations for membership on the new **Cancer Morbidity Review Board:** to serve for 3 years, Drs. J. Keith Cromer and Robert H. Barter, of George Washington University Hospital, and Dr. Stafford W. Hawken, of Columbia Hospital for Women; to serve for 2 years, Dr. Jeanne C. Bateman, of the Washington Hospital Center, Dr. John H. Clark, of Freedmen's Hospital, and Dr. Donald Walters, of Sibley Memorial Hospital; to serve for 1 year, Dr. James M. Corcoran and Dr. Theodore Winship, of the Washington Hospital Center, and Dr. Charlotte P. Donlan, of George Washington University Hospital.

At the Clinical Session of the American Medical Association in Philadelphia last December, the House of Delegates voted to set up a joint and continuing committee of 6 members, to be appointed by the Speaker of the House, 3 from the Board of Trustees and 3 from the House, who would redefine the central concept of AMA objectives and basic programs, consider placing greater emphasis on scientific activities, take the lead in creating more cohesion among national medical societies, and to study socio-economic problems.

Appointees made by the Speaker of the House to this new **Committee to Study AMA Objectives and Basic Programs** include **Dr. Hugh H. Hussey** of Washington, a member of the AMA Board of Trustees. The other members of the committee are Dr. Lewis A. Alesen, Chairman, Los Angeles; Dr. Thurman G. Givan, Brooklyn; Dr. Milford O. Rouse, Dallas; Dr. James Z. Appel, Lancaster, Pa.; and Dr. Raymond M. McKeown, Coos Bay, Ore.

One of the first projects of the Committee will be to send out questionnaires not only to state and county medical societies, specialty groups, and national medical organizations, but also to a probability sample of more than 3,000 physicians chosen systematically from the new AMA Directory. The latter sample will include both AMA members and non-members.

Dr. Marvin E. Perkins, Chief of the Psychiatric Services, District of Columbia Department of Public Health, announces the appointment of **Dr. Delbert P. Johnson** to his staff. He will be Chief of the Mental Health Consultation Unit (public schools), located at the Ross School, 1730 R Street, N.W.

Dr. Johnson is a graduate of the University of Kansas. He served in the Air Force Medical Corps from 1942 to 1946 with the rank of Major. The next two years he was on the psychiatric staff of the State Hospital in St. Joseph, Missouri. Since then he has been on the staff of the Mental Hygiene Clinic of the Veterans Administration in Baltimore. He is a diplomate in psychiatry of the American Board of Psychiatry and Neurology.

The new psychiatric building at District of Columbia General Hospital was dedicated, May 8. Built at a cost of $2,800,000, the structure is of red brick, 5 stories high, located on the south grounds of the Hospital. It has 210 beds, and is equipped to handle all kinds of acute mental illnesses. Present and participating in the dedicatory ceremonies were Dr. Daniel L. Finucane, the District's Director of Public Health, District Commissioner David B. Karrick, Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, and Dr. John D. Schultz, Chief of the Department of Psychiatry at D. C. General.

The National Library of Medicine is publishing this month the third annual volume of the Bibliography of Medical Reviews.

Review articles listed in Volumes 1 and 2 were gathered as a by-product of the *Current List of Medical Literature* operation and were duplicated in the parent publication in another format. With Volume 3, however, the collection of review articles was extended to all of the current journals received by the National Library of Medicine. The result has been the inclusion in Volume 3 of approximately 600 non-*Current List* articles along with the 2,300 review articles also listed in the *Current List*.

The 1958 volume of the Bibliography of Medical Reviews is arranged by subject with a separate author index and will contain approximately 2,900 references to review articles in clinical and experimental medicine and allied fields which have appeared largely in 1957. Copies of Volume 3 for 1958 will be available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C., at a price presently estimated at $1.25.

PERSONALS

Dr. Theodore J. Abernethy, Chairman of the Department of Internal Medicine at the Washington Hospital Center, was named a member of the Board of Governors of the American College of Physicians during its 39th Annual Convention in Atlantic City early in May. Dr. Abernethy, who will serve on the Board for three years, is Assistant Clinical Professor of Medicine at George Washington University.

The new President-elect of the College is Dr. Howard P. Lewis, of Portland, Oregon. Dr. Dwight L. Wilbur, of San Francisco, took office as President at the meeting. He is the son of the late Ray Lyman Wilbur, Secretary of the Interior under President Hoover.

Dr. Thomas H. Alphin, Director of the Washington Office of the American Medical Association since November 1955, resigned as of May 1 to become Associate Medical Director of the Equitable Life Assurance Society at its main office in New York City. **Dr. William J. Kennard,** Deputy Director, has been named Acting Director of the office.

Dr. Alphin was appointed Assistant Director of the Washington Office in 1953. In 1955 he left the post to serve for 6 months as Assistant Dean, Faculty of Medicine, University of Missouri. He returned to Washington in November to become Director of the AMA Office. Dr. Kennard joined the Washington Office the same year as Assistant Director after his retirement as Brigadier General in the Air Force Medical Corps.

Dr. Winfred Overholser, Superintendent of St. Elizabeths Hospital, was reëlected President of the Washington Institute of Mental Hygiene at its annual meeting, April 29.

Dr. Charles A. Hufnagel, Associate Professor of Surgery at Georgetown University School of Medicine, has been appointed to the Advisory Council for Science and Engineering at the University of Notre Dame. The Council is composed of 33 nationally prominent industrialists, scientists and engineers who meet semiannually at Notre Dame to consult on curricula, research programs, and other matters affecting the Colleges of Science and Engineering.

Dr. Frederick A. Reuter, Professor of Urology and Executive Officer of the Department of Urology, George Washington University School of Medicine, was one of 8 outstanding Washington citizens who were named to the University's Board of Trustees at its annual meeting, May 8. Dr. Reuter and Mr. Watson Davis, Director of Science Service, were selected by the General Alumni Association as its representatives on the Board for a 3-year term each.

Dr. Howard T. Karsner, Research Advisor to the Surgeon General of the Navy, was elected to Honorary Fellowship in the Aero Medical Association at the conclusion of its Annual Meeting in Washington in March. Dr. Karsner, an Associate member of the D. C. Medical Society, is the eleventh person elected to honorary fellowship in the 30 years' existence of the Association. One of the Nation's foremost pathologists, he has been Research Advisor to Surgeons General of the Navy since 1949.

Dr. George E. Schreiner, Assistant Professor of Medicine, Georgetown University School of Medicine, was elected Secretary-Treasurer of the American Federation for Clinical Research at its annual meeting in Atlantic City, New Jersey, May 4.

Dr. Walter A. Bloedorn has been reëlected President of the National Board of Medical Examiners. Dr. Bloedorn, who retired last September as Dean of George Washington University School of Medicine, is now heading up the National Board for the second year

The General Alumni Association of George Washington University honored 6 faculty members, who had completed 25 years' service each to the University, at its Annual Luncheon, April 26, at the

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
March 30	Dr. Leon Salzman	Religion and Psychoanalysis	Sandy Springs Friends Committee
April 9	Dr. Julius Schreiber	The Emotional Basis for Effective Marriage	Shaare Teffila Congregation
April 13	Dr. Leon Salzman	Religion and Psychoanalysis	All Souls Unitarian Church
April 15	Dr. S. George Anagnos	Cancer Control	Amalgamated Association of Street Electric Railway Motor Coach Employees
April 15	Dr. Julius Schreiber	The Emotional Needs of Children	Preschool Parent Group, Annandale, Va.
April 16	Dr. Julius Schreiber	Handling Common Emotional Problems in Marriage and Family Life	B'nai B'rith Lodge, Montgomery County (Md.)
April 21	Dr. John R. Pate	Weight Control	Burleith Citizens' Association
April 24	Dr. Hugh H. Hussey	The Physically Handicapped—Growing Need for Trained Therapists	Grantees of Professional Education Program, National Foundation for Infantile Paralysis
April 29	Dr. S. George Anagnos	Cancer Detection	D. C. Transit Employees
May 6	Dr. Allan E. Walker, Jr.	Protecting Your Child Against Hearing Loss	Washington Hearing Society
May 6	Dr. Irvin Hantman	Discussion of film, "Stapes Operation"	Washington Hearing Society
May 15	Dr. Grace H. Guin, panelist	Leukemia in Children—Medical Aspects	Nurses and Social Workers, sponsored by D. C. Division, American Cancer Society
	Dr. Jack J. Rheingold	Leukemia in Adults—Hope for the Future	
May 16	Dr. Anthony Zappala, panelist	Understanding and Treating Alcoholism—where will we be in '63?	Annual Conference of the Health and Welfare Council of the National Capital Area
May 20	Dr. Marvin E. Perkins	Community Mental Health	Monmouth County (New Jersey) Mental Health Association

Willard Hotel. **Dr. Samuel M. Dodek,** Professor of Obstetrics and Gynecology, **and Dr. Addison M. Duval,** Clinical Professor of Psychiatry and Assistant Superintendent of St. Elizabeths Hospital, both members of the District Medical Society, were among the honorees.

Dr. Marvin E. Perkins, Chief of the Psychiatric Services Division, D. C. Department of Public Health, will serve as a member of the Subcommittee on Biostatistics of Mental Disorders of the American Public Health Association. He received this assignment from Dr. Ernest M. Gruenberg, Chairman of the A.P.H.A. Program Area Committee on Mental Health. The first meeting of the Subcommittee was held in New York City on June 6 and 7.

GEORGE CLEMENS RUHLAND, A.B., M.D.

(1878–1958)

TRIBUTE TO DR. RUHLAND

Dr. George C. Ruhland, former health officer of the District who died Monday at the age of 79, already has a monument of unusual significance in this city. It is the living presence of many thousands of persons who, but for his services, would be dead. No one can say with certainty how many lives he saved, but they are legion.

Dr. Ruhland took over a moribund Health Department here in 1935 after demonstrating in Milwaukee and in Syracuse that public health is purchasable. In the years that followed he set up the Bureau of Tuberculosis Control, the Bureau of Public Health Nursing, the Bureau of Maternal and Child Welfare, the Crippled Children's Clinic, the Bureau of Mental Hygiene, and numerous other specialized units to deal with public health problems. Gallinger (now D. C. General) Hospital was transformed into a modern institution. Health centers and dental clinics were established. In a period of less than 15 years the District's health budget was multiplied by five, and the city began to witness what an energetic campaign against disease can mean.

When Dr. Ruhland began his work here, the District had a scandalously high death rate—14.5 per 1000 population, which was 28 per cent above the national average. When he retired in 1949, the death rate had fallen to 9.5—1 per cent below the national average. This was a truly remarkable achievement which the city should not soon forget.

In addition to instituting new services and building an efficient organization, Dr. Ruhland gave the communities in which he worked a new consciousness of the importance of public health. His persistent drive toward his goal brought him into collision with medical groups, District officials, and some members of Congress. He found the District a very difficult community in which to work because of its lack of home rule and its bureaucracy. Yet most of his progressive measures were adopted and his influence is still felt not only in Washington but also in many health departments in different parts of the country. The fact that, in retirement, he had kept entirely out of the news does not minimize the great debt of gratitude that this community owes to George C. Ruhland.—Editorial from *The Washington Post and Times-Herald*, April 18, 1958.

GEORGE C. RUHLAND, M.D.

Dr. George C. Ruhland, who served as District Health Officer from 1935 until he resigned in 1949, died, April 15, at Providence Hospital. The splendid tribute reprinted here lists some of the outstanding accomplishments of his 15-year period of service.

Dr. Ruhland was born near Dresden, Germany, of American parents, Frederick C. and Kuni Ramming Ruhland. He was educated in Milwaukee, Wisconsin, receiving his A.B. degree from Concordia College in 1897 and his medical degree in 1904 from Marquette University School of Medicine. He interned at St. Joseph's Hospital in Milwaukee and served as resident physician at the National Soldiers Home in the same city.

From 1905 to 1912 Dr. Ruhland was Director ot the Health Department Laboratories in Milwaukee, and served as Health Officer from 1912 to 1924. During World War I he was given leave of absence to serve as Director of the Army Base Hospital at Fort Sill, Okla., with the rank of Major. He left Milwaukee in 1924 to go to Syracuse, N. Y., where he was Director of Health Demonstration and Health Officer until 1935.

Dr. Ruhland spoke several foreign languages. He contributed articles relating to the field of public health to a number of scientific publications. For 10 years, beginning with 1935, he lectured at Georgetown, George Washington, and Howard Universities and at the Catholic University of America.

Following his retirement he served briefly as Executive Director of the District Division of the American Cancer Society. He also took up painting as a hobby.

Dr. Ruhland was a member of the American Medical Association, the American Public Health Association, the National Tuberculosis Association, The National Social Hygiene Association, the Washington Academy of Medicine, International Medical Club, and State and Territorial Health Officers' Association. He became affiliated with the District Medical Society as an Active member in 1936, transfering to Associate membership in 1940; in 1942 he was reëlected to Active membership. He was a member of the Cosmos Club.

Surviving him are his wife, Mrs. Lyda B. Haviland Ruhland, residing at 1875 Plymouth Street, N.W., and his brother, William T. Ruhland, of Washington. They are the only immediate survivors.

ALBERT NICHOLAS BAGGS, M.D.

(1870-1958)

Dr. Albert N. Baggs, for many years associated with the Veterans Administration, and later, Selective Service, died, May 1, 1958 at his home, 2324 Ashmead Place, N.W.

Dr. Baggs was born in Philadelphia, August 28, 1870. Following graduation from the University of Pennsylvania School of Medicine in 1892, he interned at the University Hospital.

Dr. Baggs engaged in private practice in Montgomery County, Pennsylvania, from 1895 until 1917. During those years he served as examiner for several insurance companies, including New York Life, Pennsylvania Mutual, and Travellers.

With the advent of World War I, he enlisted in the Army Medical Corps and served during the years 1917 to 1923, with one year of overseas duty, when he was regimental surgeon for the 313th Field Artillery of the 80th Division. He was stationed at various times at the U. S. Army Hospital at Oteen, N. C., Walter Reed Army General Hospital, and at the Army War College in Washington, D.C.

From 1924 to 1940 he was consultant to the Veterans Administration. During World War II he was associated with Selective Service, holding the commission of Lt. Colonel in the Medical Reserve Corps of the Army.

He was medical consultant to the American Legion and for a number of years was Executive Secretary of its National Medical Advisory Board.

He retired from active practice many years ago but maintained his license to practice, for neighborhood emergencies, until a year ago.

Dr. Baggs was an Active member of the Medical Society of the District of Columbia from 1924 to 1927 and again from 1944 until he died.

He is survived by his wife, Mrs. Minna Nieman Baggs, of Washington, and two sons, Henry Baggs, of Philadelphia, and Edward W. Baggs, of the home address.

JESSE LEE HALL, M.D.

(1886-1958)

Dr. Jesse Lee Hall, retired Washington physician, died, April 22, 1958, at his home, 1518 Webster Street, N. W. He had been in general practice in the District of Columbia for 30 years before his retirement in 1957.

Dr. Hall was born in Marble Falls, Texas, December 13, 1886, to Ben and Sarah Hall. He attended the public schools of Burnet, Texas, and graduated from Southwest Texas State Teachers College in 1910. He taught for four years in the public schools of Texas before he enrolled for study at the Vanderbilt University School of Medicine, from which he graduated in 1916.

During World War I he served as Captain in the Army Medical Corps and was awarded the Purple Heart for wounds suffered during the battle of the Argonne. After the War he entered the Public Health Service, serving from 1919 to 1924, when he became associated with the Veterans Administration in Washington.

In 1926–27 he went to New York City for 6 months' postgraduate study in eye, nose and throat, and upon his return established a private practice with offices in the Medical Science Building at 1029 Vermont Avenue, N. W.

Dr. Hall had staff privileges at Doctors, Sibley, Garfield and George Washington University Hospitals.

He was elected an Active member of the Medical Society of the District of Columbia in 1940. He belonged to National Cathedral Post No. 10 of the American Legion and to the Potomac Lodge of the Masons.

Surviving him are his wife, Mrs. Ruth Hall, and a son, Benjamin Hall, of the home address; a brother, Andrew F. Hall, of Marble Falls, Texas; and a sister, Mrs. Lilly Steinnett, of Odem, Texas.

Cancer of the Breast—Tuohy

(*Continued from page 291*)

At the same time, I believe that it is incumbent upon clinical investigators to attempt to modify the presently used agents which have potent local anti-tumor effects in such a way as to make them more available in the present holding operation in which we are now actively engaged.

Correspondence

(*Continued from page 317*)

but accelerated by the sudden vasospasm. This event may then lead to thrombosis in even the smaller collateral vessels. Leriche was aware of these facts and indicated that so long as certain contraindications *did not exist* these consequences would not occur. Fortunately, these severe reactions have been rather rare.

It is to be regretted, however, that the fear of a mishap would alter a physician's plans to the extent that a necessary aortogram were excluded.

Sincerely yours,
John M. Keshishian, M.D.

Charting a Course for Blue Shield—Layton

(*Continued from page 322*)

mittedly, this involves some risk; but without it, I fear we cannot succeed. In the broad sense, much can be done to improve professional relations by returning to the profession and to sponsoring medical societies the prerogatives of nomination and election of board members, and by offering to the specialty societies the privilege of selecting members for important committees, such as fee schedule committees, arbitration committees, and others. As professional understanding improves, we will be able to improve the product we offer the public. As professional understanding improves, we will have a sales force with which no commercial company can compete. And, as professional understanding improves, subscriber misunderstandings will be explained and understood, without ever reaching the Blue Shield office.

The medical profession has often been criticized for its efforts to maintain the status quo and accused of lack of foresight, thereby placing itself always on the defensive. A new generation of physicians is among us, and Blue Shield must adapt itself to changing times.

In conclusion, I should like to quote from Giuseppe Mazzini, "Slumber not in the tents of your fathers. The world is advancing—advance with it." And from Francis Bacon, I quote, "He that will not apply new remedies must expect new evils."

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1. Comroe's Arthritis: Hollander, J. L., p. 149 (Fifth Edition, Lea & Febiger, Philadelphia, Pa. 1953).
2. Merck Manual: Lyght, C. E., p. 1102 (Ninth Edition, Merck & Co., Inc., Rahway, N. J. 1956).

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Book Reviews

Strabismus Ophthalmic Symposium II. Edited by James H. Allen, M.D. Price, $16.00. Pp. 552, with 251 illustrations. St. Louis: Mosby, 1958.

This volume is based on the second Symposium on Strabismus sponsored by the New Orleans Academy of Ophthalmology. The material presented represents the viewpoints of the 8 distinguished participants.

The complex and broad field of strabismus is well handled by the various authors through essays, which actually constitute detailed monographs on the subject. The reader is successively led through the intricacies of embryology, anatomy, physiology and neurology of the ocular muscles into the clinical application. The most recent medical therapy with miosis as well as the older, more established methods are presented. The surgical aspects are equally well covered.

This well-written book is a storehouse of knowledge and an able successor to the first Symposium that was so welcome 8 years ago. It could be of great benefit to anyone interested in the treatment of strabismus.

Melvin G. Alper, M.D.

Drugs—Their Nature, Action and Use. Harry Beckman, M.D. Price, $15.00. Pp. 728, with 126 illustrations. Philadelphia: Saunders, 1958.

This is a new textbook written for the undergraduate medical student. It is written in 3 sections, the first of which, entitled "A Justification of Pharmacology and Pharmacologists," is merely a 2-page introduction.

Section II, entitled "The Nature of Drugs," presents a description of the broad background of the science of pharmacology, including the sources, metabolism and fate of drugs as well as drug addiction and drug hypersensitivity.

Section III, entitled "The Actions and Uses of Drugs," comprises the major part of the text. It offers combined discussions of the actions and actual uses of drugs in an arrangement designed for direct serviceability from the pharmacotherapeutic standpoint. For example, chapters are entitled:

Drugs that Stimulate Cardiac Muscle
Drugs that Depress Cardiac Muscle
Drugs that Reduce Blood Pressure
Drugs that Constrict Blood Vessels
Drugs that Lessen Pain
Drugs that Affect Mood
Drugs that Combat Cancerous Processes
Drugs that Combat Infectious Diseases
Drugs that are Hormones
Drugs that are Vitamins

The entire list includes 76 different groups of drugs.

Bibliographies at the end of each chapter are adequate.

While this book was written for the undergraduate student, it should be of great value to all practitioners as well. As a matter of fact, the busy physician who is apt to gain much of his pharmacologic information from the drug detail-man would do well to use this text as a reference. The information is concise, accurate, and easily readable.

This book is definitely recommended for all medical students and practitioners.

Lawrence E. Putnam, M.D.

The Undiscovered Self. C. G. Jung, M.D. Translated from the German by R. F. C. Hull. Price, $3.00. Pp. 113. Boston: Little, 1958.

In this book Dr. C. G. Jung applies the wisdom of his age (82) and his long psychotherapeutic experience to the plight of the individual in modern society. Due to the development of mass societies on both sides of an iron curtain, threatening each other with total destruction, the goal and meaning of the individual life, which is the only real life, no longer lie in individual development but in the policies of the States. One of the chief factors responsible for psychological mass-mindedness is scientific rationalism, which robs the individual of his unique dignity. Knowledge, which relies on statistical abstractions and generalizations, differs from individual understanding of the inner transcendent experience, which protects the individual from otherwise inevitable submersion in the mass. A gulf has opened up between faith and knowledge.

Religion means individual dependence on and submission to the irrational facts of experience. Institutionalized in the creeds of churches, religious experience makes compromises with forces of mass psychology. When the mythic elements of religion are understood literally and imposed as dogma, they bring the individual in conflict with his rational knowledge, while a symbolic understanding of religious myths proves their ever new creative power in individual experience. Religious experience is rooted in the unconsciousness of instincts. The religious symbols that Jung calls archetypes channelize instinctual energies in individual self expression. Religious symbols have a numinous awe-inspiring quality and arouse fear. Institutionalized religion seeks security in the firm structures of the word, the logos. But when the word attains universal validity, it loses its numinous creativity. In everybody's mouth the word becomes a slogan, elicits credulity, not trust; it can be misused as

(*Continued on page 45*)

Book Reviews

(*Continued from page 42*)

propaganda, lie, deception, as a powerful tool in political mass management.

The psychiatrist is confronted with the conflicts of the unique individual sufferer who is haunted by the demands for adaptation to a mass society and by the inner conflicts of his instincts that seek creative self-expression. He does not take sides; he tries to understand and to lead the individual to broadening self-knowledge. Beyond the boundaries of consciousness the instincts of sexuality and power drives are dominating. In the learning process of adaptation to civilization the individual loses his instinctual unconscious roots. His instincts may overpower him when he identifies himself one-sidedly with the rational content of consciousness. Irrational impulses, the imagination of evil is projected on the outsider. Estranged from his unconscious the individual is a man without shadow. He is split in himself as the world is split. The religious person is used to the thought of not being the sole master in his own house, but the complacent rational idealist may believe that all evil stems from beyond his own fences. When we ignore our own proclivity to evil our lack of insight deprives us of the capacity to deal with evil.

We are living through a period of crisis; a metamorphosis of the gods changes fundamental principles and symbols. The metanoia of the individual, the self-understanding and broadening transformation of the soul are decisive factors in this crisis, too easily forgotten in the hectic pace of modern scientific, technical and social developments.

EDITH WEIGERT, M.D.

Gynecologic and Obstetric Pathology with Clinical and Endocrine Relations, 4th ed. EMIL NOVAK, A.B., M.D., D.Sc. (Hon., Trinity College, Dublin; Tulane), F.A.C.S., F.R.C.O.G. (Hon.), AND EDMUND R. NOVAK, A.B., M.D. Price, $14.00. Pp. 560, with 683 illustrations, 25 in color. Philadelphia: Saunders, 1958.

This well written "Gynecological and Obstetric Pathology" represents the latest work of the late Dr. Emil Novak. He passed away in February of 1957 and this specialty will miss his contributions.

This fourth edition has been prepared by Dr. Novak and his son, Edmund. It is well written, with Dr. Emil Novak's pleasant, humorous, easy reading style. The book is well organized and covers pathologic conditions, benign and malignant, by organ. The illustrations are very good with several unusual, well reproduced slides. Each chapter contains a few paragraphs on the normal histology followed by adequate discussion of the pathology. There is one chapter on endocrinology, but it is quite sketchy.

(*Continued on page 48*)

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*Report on file in offices of Health-Mor, Inc., 203 N. Wabash Ave., Chicago 1, Ill.

Book Reviews

(Continued from page 45)

The chapters on hydatidiform mole and chorionepithelioma malignum and abnormalities of the placenta are excellent.

For the student of pathology, the gynecologist soon to take his boards, or as an efficient reference book in one's library, this edition is highly recommended.

William H. Cooper, M.D.

The Story of Peptic Ulcer. Conceived by Richard D. Tonkin, M.D., F.R.C.P. Characterized by Raymond Keith Hellier, F.R.S.A. Price, $2.25. Pp. 71. Philadelphia: Saunders, 1957.

In keeping with the present appeal of visual education, Dr. Tonkin, with the able assistance of Mr. Hellier, is offering "depressed and disappointed dyspeptics" an authoritative booklet, delightfully illustrated, which explains what causes peptic ulcer, how to avoid it, and particularly, if it can't be cured, how to live with it. Mr. Peptic Ulcer is pictured as a malicious little sprite, with the contour of a porcupine, and the author aims to instruct the patient in ways of outmaneuvering the villain.

The approach is both realistic and optimistic. The author accomplishes his purpose well, which, as stated in his Postscript, is not only to inform but to interest and amuse. For the last, he is highly indebted to Mr. Hellier, whose illustrations are original and perspicuous, executed with a minimum of detail.

The gastroenterologist might like to place a copy of this book on the table in his reception room to give his dyspeptic patient a little pre-treatment cheer, but it is unlikely that it would stay there very long!

A. L. E.

Ciba Foundation Colloquia on Endocrinology. Volume XI. Hormones in Blood. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Elaine C. P. Millar, A.H.-W.C., A.R.I.C., Editors for the Ciba Foundation. Price, $9.00. Pp. 416, with 74 illustrations. Boston: Little, 1957.

This text is the latest of the excellent Colloquia on Endocrinology held under the auspices of the Ciba Foundation. It deals with the newest and perhaps most important aspect of endocrinology, namely, identification and quantitation of the hormones in circulating body fluids. This material is of vital importance, and the text should be of keen interest to those interested in endocrinology, particularly as concerns its research aspects. Certain portions of the text, particularly those papers dealing with measurement of thyroid hormone, would be of value to all who practice clinical endocrinology and of some interest to all internists. On the whole, this text is primarily recommended for those engaged in endocrinology, particularly from a research viewpoint.

Laurence H. Kyle, M.D.

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MEDICAL ANNALS
of the
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VOLUME XXVII *July*, 1958 NUMBER 7

HYPERTONIC DEHYDRATION COMPLICATING HIGH PROTEIN NASOGASTRIC TUBE FEEDING

LESTER M. CRAMER, D.M.D., M.D.*
CHESTER Z. HAVERBACK, M.D., M.S.
ROBERT R. SMITH, M.D.

Surgery Branch, National Cancer Institute, National Institutes of Health, Public Health Service, United States Department of Health, Education, and Welfare

NASOGASTRIC tube feeding is a well established procedure in the nutritional management of surgical patients. With advancements in major excisional surgery and better understanding of the metabolic needs of the depleted individual, there is an ever increasing number of situations where a tube-feeding regimen offers the optimal opportunity for meeting fluid, electrolyte and caloric requirements.

The preoperative restoration of fluid balance and nutrition in patients presenting for major surgery can be accomplished by rehydration, transfusion and feeding. Frequently these patients are debilitated and cannot or will not eat. Patients with cancer of the head and neck region may be unable to swallow food because of pain or mechanical obstruction. After surgical excision these patients require continuation of tube feeding in order to facilitate healing of operative wounds and to provide nutritional requirements.

Most authorities advocate a high protein content in nasogastric tube-feeding mixtures.[1, 2, 3] Tube-feeding diets of most hospitals and the commonly used, commercially available formulae contain large amounts of protein. The usually recommended daily intake contains 100 to 200 Gm. of protein and 2,500 calories in a daily fluid volume of approximately 2,500 to 3,500 ml.

Engel and Jaeger[4] have reported 6 patients receiving high-protein tube feedings, during the course of which there developed dehydration associated with hypernatremia, hyperchloremia, and azotemia. These were either unconscious patients who could experience no thirst sensations or debilitated patients who were too weak to act upon their sensation of thirst. The resultant syndrome was not recognized as being due to dehydration because fluid intake was adequate by usual standards, and urine output was generous. It is important for physicians who employ nasogastric feedings to recognize this syndrome, because if an accurate diagnosis is established, restricting protein intake and supplying adequate fluids will quickly correct the complication. If it is unrecognized, the clinical deterioration may progress and result in death.

---

* Presently at the University of Rochester Medical Center, Rochester, New York.

The occurrence of this syndrome has not been reported in a conscious, nondebilitated adult, presumably because the thirst mechanism almost always is an adequate control for fluid intake. The following is a case report of the occurrence of dehydration with hyperosmolarity and azotemia in a conscious, nondebilitated patient receiving tube feedings in the postoperative period after head and neck surgery.

REPORT OF CASE

This 49-year-old white male was admitted to the Clinical Center of the National Institutes of Health with a 3-month history of an epidermoid carcinoma in the left anterior floor of the mouth. The patient had smoked over a package of cigarettes a day for many years and admitted to having taken 2 to 3 alcoholic cocktails a day. He had had a chronic, productive cough for at least 20 years. The cancer was located in the floor of the mouth adjacent to the midline on the left side. It was 1.5 by 1 by 0.5 cm. in size and was ulcerated on its surface. It extended close to the periosteum of the mandible but did not involve bone. There were no significant palpable lymph nodes in the neck. A few crepitant rales were heard over the left lower posterior lung field. There was no historical, physical or laboratory evidence of mental, renal or liver disease. Laboratory findings, including blood chemical examinations (figure 1), electrocardiogram, and X-ray films of the chest and mandible, were normal.

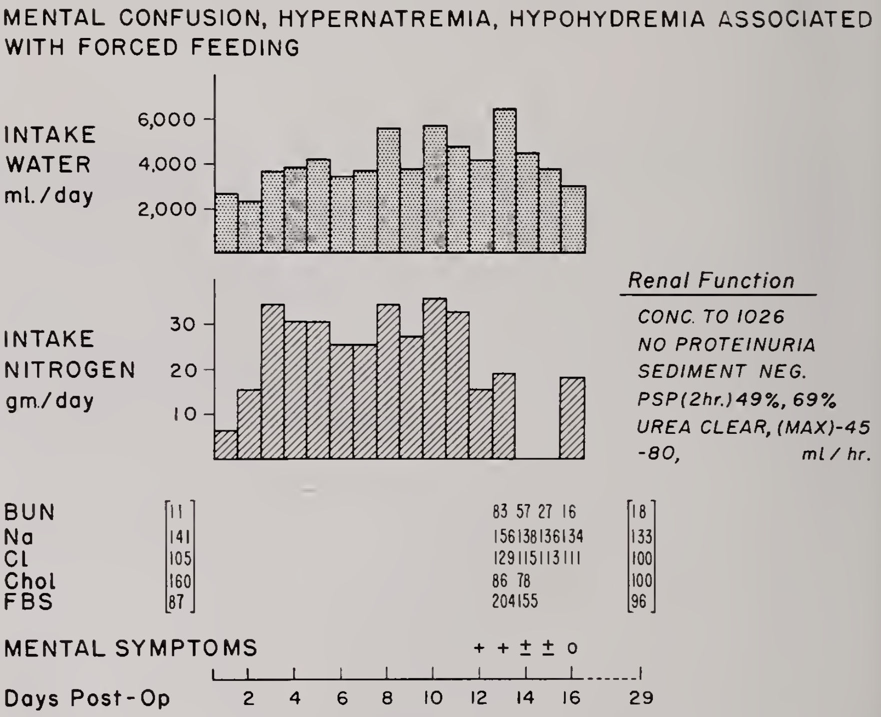

FIG. 1. Chart of postoperative intake of water and nitrogen, with significant changes in blood chemistries. Bracketed figures at the left were admission values, those bracketed at the right were values on the twenty-ninth postoperative day. Also shown are results of renal function tests performed 2 weeks after the mental symptoms subsided. The results of 2 separate 2-hour phenolsulfonphthalein excretion tests are given. Grams of nitrogen × 6.25 = grams of protein. BUN is expressed as mg. per 100 ml. blood; Na and Cl as mEq. per liter serum; cholesterol as mg./per cent serum, and fasting blood sugar as mg. per 100 ml. blood.

The cancer was treated surgically by an en bloc, in-continuity removal of the left side of the floor of the mouth, superior margin of the left mandible adjacent to the tumor, right suprahyoid and submental region, and a left radical neck dissection was performed. The patient received 3 units of whole bank blood during the procedure. Tracheostomy was performed, and nasogastric feeding was started. A large pressure dressing was applied covering the entire neck and lower part of the face. Histologic examination of the excised surgical specimen showed that the cancer was completely excised, and metastatic cancer was not seen in 21 cervical lymph nodes examined.

A standard tube-feeding mixture,* each 100 ml. of which contained 40 Gm. of Sustagen and 80 ml. of water, was begun on the first postoperative day. As seen in figure 1, during postoperative days 3 to 11 the average daily intake was protein 193 Gm., nitrogen 33 Gm., and 4,200 ml. of fluid. Two thousand, five hundred ml. of this was water taken *ad libitum*.

---

* Produced by Mead Johnson & Co., Evansville, Indiana. Each 100 ml. of this mixture provided carbohydrate 26.6 Gm., protein 9.4 Gm. (nitrogen 1.5 Gm.), fat 1.4 Gm., sodium 3.67 mEq., potassium 7.96 mEq., chloride 6.48 mEq., calcium 7.0 mEq., and phosphorus 6.44 mEq., and supplies 154 calories.

Except for fever (38 to 39.8°C) and tenacious, purulent tracheobronchial secretions, which were attributed to activation of the chronic bronchitis, his postoperative course was uneventful for the first week. He did show some facial edema, moderate amounts of serous drainage from wound drains and drooling of copious amounts of saliva, as well as increased tracheal secretions. All these factors combined to produce a dehydrating effect even though he was receiving 3,500 to 4,000 c.c. of fluid daily. By the eighth postoperative day he began to complain of thirst and voluntarily increased his water intake. During the next few days abnormal psychiatric symptoms were observed. By the twelfth postoperative day he was confused, disoriented, and very uncoöperative. He pulled out his feeding tube on 2 occasions, further decreasing his fluid intake. Speech was bizarre, halting, and at times incoherent. Complaints of thirst then ceased. This abnormal behavior continued throughout the next day. Blood drawn on the thirteenth postoperative day contained blood urea nitrogen 83 mg., Na 156 mEq./L, K 4.5 mEq./L, CO_2 19 mEq./L, Cl 129 mEq./L, Ca 10.0 mg., and P 5.6 mg. per 100 ml. (figure 1). The existence of a dehydration tube-feeding syndrome was recognized and treated by stopping all feeding formula and giving large amounts of water per tube. In the next 2 to 3 days the mental status, blood chemical examinations, and the temperature quickly returned to normal. The patient's subsequent hospital course was unremarkable, and his blood chemical values remained normal while he was on tube feedings that contained a lower daily protein intake.

During the acute symptoms the serum cholesterol was markedly low and the fasting blood sugar elevated. By the time of discharge the blood sugar had returned to normal and the cholesterol was higher, although below the normal range. The cause for the changes in blood sugar and cholesterol remained obscure.

Renal function studies (figure 1) done 2 weeks after the mental symptoms subsided did not reveal any disorder of renal function.

In the 2 years since the above-described episode the patient has developed no evidence of local recurrence or dissemination of the floor of the cancer. In the past 4 months a second primary epidermoid carcinoma involving the extrinsic larynx was found. He underwent a total laryngectomy, receiving Sustagen tube feedings for 25 days without developing any laboratory or clinical evidence of the above-described syndrome.

DISCUSSION

Hypertonic dehydration syndrome has been a familiar problem of the pediatricians because it occurs with greater frequency in children. The extensive literature concerning fluid and electrolyte balance in surgical patients does not mention the occurrence of dehydration with hyperosmolarity complicating nasogastric tube feedings in a conscious, nondebilitated patient. In attempting to understand the pathogenesis of this syndrome a review of causes of dehydration associated with hyperosmolarity is necessary.

Dehydration may be due to simple dehydration in which water requirements are normal but not met—diabetes insipidus, in which water requirements are high and not met, or high solute load in which case water requirements are high and not met.[5]

Total osmolarity and electrolyte content are among the most jealously guarded properties of the body. The qualitative composition of body fluids is safeguarded even at the expense of changes in volume.[6] To meet the constant threats to its total osmolarity the body has an intricate thirst mechanism intimately interwoven with a neuroendocrine-hemodynamic renal mechanism of water and electrolyte control.

Thirst mechanism. Experimental studies in both dog and man lead to the belief that the sensation of thirst arises from increased osmolarity of the extracellular fluid[7] with its inevitable consequence of a decrease of the intracellular fluid volume.[8–11] A cerebral and hypothalamic structure[12] is keyed to the tonicity of the extracellular fluid and is stimulated by dehydration of its cells. In the normal person this will lead to the ingestion of an appropriate intake of water.

Inhibition of the thirst stimulus can be accomplished by gastric filling,[13] vagotomy,[14] the psychic influence of the act of drinking,[15] and the restoration of normal extracellular tonicity. Hypotonicity of the extracellular fluid also represses thirst stimuli unless it is accompanied by a markedly depleted extracellular fluid volume, at which time thirst will be experienced despite the hypotonicity of the extracellular fluid.[16]

Neuroendocrine-hemodynamic mechanism. Central nervous system control of water balance is mediated through antidiuretic hormone (ADH) action on the renal distal convoluted tubule. Whether the ADH is produced in the posterior pituitary under control of nerve fibers from hypothalamic centers or whether the neurons in these hypothalamic centers actually secrete the ADH is not yet settled.[17] Cortical influence upon this mechanism may reside in the subfrontal area.[18, 19, 20]

Control of electrolyte balance by the central nervous system seems to be centered both in the hypothalamus and the reticular substance in the floor of the fourth ventricle.[21, 22, 23] This control may possibly be effected by vasomotor effects on the major renal blood vessels,[24, 25] by specific neural control of the nephron,[26] or by hormonal mediation.

The role of changes in renal hemodynamics in regulating the excretion of electrolytes has become widely accepted, as has the observation that a relatively small decrease in glomerular filtration rate in the presence of normal tubular function can effect marked decrease in the urinary excretion of sodium.[27, 28, 29] Dehydration resulting in a contracted blood volume can decrease renal blood flow and thus cause a decrease in glomerular filtration rate. However, in studies[30, 31] on water deprivation in human volunteers the urinary concentration of sodium and chloride increased concomitantly with the initial rises of plasma sodium and chloride. This is in marked contrast to the virtual disappearance of these electrolytes from the urine of patients with hypertonic dehydration.[32] In a tube-fed patient without intracranial disease this hypoelectrolyturia and the accompanying increases in serum sodium and chloride may be explained by the high protein intake.

This high protein intake contributes to the hypertonic dehydration in 2 ways: 1. The specific dynamic action of proteins may cause fever and hyperventilation,[16, 33, 34] thus increasing insensible water loss. It can increase energy expenditure by as much as 30 per cent. 2. Much more important are the metabolic products such as from a high protein intake which will result in a large solute load to the kidney. The renal loss of water from the body will be markedly accentuated by the large amount of water necessary to excrete this extra solute load. Continuous increase of the tonicity of the plasma will occur until sufficient water is supplied, because the kidney responds to the increased (nitrogen) loads in the face of inadequate water intake by putting out a concentrated urine low in sodium and chloride. By elimination of salt from the urine, this tubular reabsorption can save a considerable amount of water; but it also is retaining the sodium and chloride even in the presence of their already elevated values in the serum. The mechanism for this is not yet clearly defined.

In the patient reported, the average daily protein intake of 193 Gm. would furnish 33 Gm. of urea nitrogen per day augmented to the extent of postoperative negative nitrogen balance. This urea nitrogen plus his daily average intake of 9 Gm. of salt provided him with a minimal solute load of more than 1,500 milliosmoles each day. The average daily fluid intake of 4,200 c.c. minus a conservative estimate of extrarenal water losses leaves only about 1 liter of water each day for urine (with the assumption of constant weight). Even if maximum urine concentration of 1,400 milliosmoles had been continuously achieved, the development of a water deficit was inevitable unless copious amounts of fluid were taken.

Actually this patient did take in large amounts of water in response to thirst. Apparently his thirst mechanism was inadequate, for he was unable to rehydrate himself until protein intake was markedly decreased. With stoppage of protein intake and addition of even more water intake, tonicity rapidly returned to normal and mental symptoms subsided.

Thus, a patient receiving a high protein feeding by tube may develop hypertonic dehydration. Its appearance is enhanced in the very young, in those with renal disease with decreased ability to concentrate urine, or those with certain intracranial lesions. In addition, the surgical patient, especially one undergoing extensive head and neck surgery, may be prone to dehydration because of the following special conditions imposed upon him:

Excessive water losses.

A. Tracheostomy. The drying effects upon the tidal air and trachea are well known. Losses may range up to 500 c.c. per day.

B. Drooling. Inability to swallow may result in loss of over 1,500 c.c. per day.

C. Wound seepage. This may be excessively great because of the relatively greater vascularity and lymphatic drainage of the face and neck.

When the added water requirement accompanying a high protein intake is added to these factors and to the negative nitrogen balance caused by the surgical trauma, it is surprising that the occurrence of this hypertonic dehydration is so infrequent.

If treatment of this type of dehydration is instituted promptly, provided that the diagnosis has not been unduly delayed, rehydration and decrease of protein intake will quickly restore homeostasis. Fluid replacement with electrolyte-free solutions should be accomplished over a few-day period. Too rapid attempts at correction may predispose the patient to congestive heart failure or hypotonic syndromes. Reinstitution of protein intake (75 to 80 Gm.) should be started as soon as symptoms have disappeared and the serum electrolytes are normal.

SUMMARY

Attention is drawn to the syndrome of dehydration with hyperelectrolytemia and azotemia following high-protein nasogastric tube feedings. The importance of recognizing this potentially fatal but easily reversed condition is emphasized. The diagnosis of this dehydration may be missed because the fluid intake seems adequate by usual standards, the output is not severely altered, and thirst may not be a prominent nor reliable symptom.

A case illustrating the syndrome, presumably the first reported case of the occurrence in a conscious, nondebilitated adult without primary cerebral or renal disease, is presented.

The osmoreceptor-thirst mechanism and the neuroendocrine-hemodynamic mechanism of renal function are reviewed, and their relation to the pathologic physiology of the hypertonic dehydration syndrome discussed.

The special conditions imposed upon the patient undergoing radical surgery of the head, face, and neck are presented in their relation to the development of this syndrome.

BIBLIOGRAPHY

1. Elman, R.: Parenteral Alimentation in Surgery with Special Reference to Proteins and Amino Acids. New York: Hoeber, 1947.
2. Jolliffe, N., Tisdall, F. F., and Cannon, P. R., editors: Clinical Nutrition. Edited for the Food and Nutrition Board of the National Research Council. New York: Hoeber, 1950.
3. Stare, F. J., and Thorn, G. W.: J.A.M.A., 1945, **127,** 1120.
4. Engel, F. L., and Jaeger, C.: Am. J. Med., 1954, **17,** 196.
5. Welt, L. G., and others: A.M.A. Arch. Int. Med., 1952, **90,** 355.
6. Gamble, J. L.: Chemical Anatomy, Physiology, and Pathology of Extracellular Fluid: A Lecture Syllabus. Cambridge, Mass.: Harvard, 1942.
7. Gilman, A.: Am. J. Physiol., 1937, **120,** 323.
8. Darrow, D. C., and Yannet, H.: J. Clin. Investigation, 1935, **14,** 266.
9. Dill, D. B.: Life, Heat, and Altitude: Physiological Effects of Hot Climates and Great Heights. Cambridge, Mass.: Harvard, 1938, pp. 50–72.
10. Holmes, J. H., and Gregersen, M. I.: Am. J. Physiol., 1950, **162,** 326.
11. Wolf, A. V.: Ibid., 1950, **161,** 75.
12. Verney, E. B.: Proc. Roy. Soc., London, s.B., 1947, **135,** 25.
13. Montgomery, A. V., and Holmes, J. H.: Am. J. Physiol., 1955, **182,** 227.
14. Towbin, E. J.: Ibid., 1955, **182,** 377.
15. Bellows, R. T.: Ibid., 1939, **125,** 87.
16. Brodsky, W. A.: Am. J. Surg., 1955, **90,** 919.
17. Scharrer, E., and Scharrer, B.: Recent Progress in Hormone Research, 1954, **10,** 183.
18. McCulloch, W. S.: Physiol. Rev., 1944, **24,** 390.
19. Murphy, J. P., and Gellhorn, E.: J. Neurophysiol., 1945, **8,** 431.

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HEAD-AND-SHOULDER HUNTING IN THE AMERICAS

Photographic Follow-up Studies in Lobotomy

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THE LATE Tommy Hitchcock is said to have remarked that no hobby is worthwhile unless you're risking your neck. Photographing psychiatric patients may seem less hazardous than high-wire trapeze work or lion-taming, but psychiatrists run a certain risk of assassination by patients. It's an occupational hazard.

Psychiatric patients are usually more dangerous to themselves than to others, as the long list of suicides reported in the newspapers will attest, but they sometimes focus their aggression on the psychiatrist. It has been my good fortune to escape thus far with a whole skin and with only one bruise to my dignity and my posterior when a patient whom I had been demonstrating to a class took advantage of my inadvertently turning around to the blackboard. On 2 occasions I have forcibly taken revolvers from women patients, although I was not sure whether they intended to use them on themselves or their husbands or me. Fortunately they recovered from their distress and are now counted among my friends.

This personal experience could probably be equaled by many of my colleagues. In the course of a long period of follow-up studies I have encountered many grateful patients as well as some not so grateful. There was Mike who wrote me from a mining town in Pennsylvania that I was a crook, had never operated on him, and that he was coming to Washington to shoot me. He telephoned from Union Station, repeating the statement. I notified the Third Precinct and asked them for protection. "You let us know when he gets there and we'll be on the lookout" was the reply. The girls in the office were a bit nervous, not knowing Mike, and I was more so since I did know him. When he arrived the stage was set and almost before he had time to sit down a squad car answered the appeal and 5 officers walked in ready for action. When I came down from my office, Mike was in good hands. He had no gun with him. Not knowing just what to do with him, I explained to the officers that this patient had had a lobotomy a number of months previously for a psychosis and requested that they take him to Gallinger Municipal Hospital for observation. I then telephoned his brother and asked him to appear at the hearing before the Mental Health Commission. Meanwhile I talked with Mike, endeavoring to determine why he had it in for me. He repeated the story, that he had come to Washington to be operated on for relief of unbearable tension but that I had not operated on him. I replied that I was not the surgeon, that Watts had done the lobotomy, and that the scars which were readily visible were proof of it. He insisted that no operation had been done because he still felt the same way, and repeated that I was a crook. In the hospital, however, he stated that he didn't really intend to shoot me but only to say how angry he was that I had failed to operate on him when I had agreed to do so.

At the hearing 4 of Mike's brothers appeared and convinced the Commission that he was not really dangerous and promised that in the future they would see to it that Mike did not come again to the District of Columbia.

I saw Mike again a couple of years later in his home town at the barber shop and took his photograph—head and shoulders. He was polite though not too interested. He no longer called me a crook, though I did not press the point of the operation. Since then I have talked with him or one of his brothers by telephone and found that he was regularly employed 12 years after his lobotomy. On the last occasion the brother expressed considerable resentment that I had told lies at the hearing before the Commission and asked me never to try to get in touch with Mike again. I haven't.

Most follow-up studies are attended with only the hazards of travel. During the year 1956–57 when I was engaged in a determined effort to contact as many as possible of the Freeman-Watts lobotomy patients I covered 45,000 miles by car, as well as plane trips to Europe and South America. On the last trip my camera went back on me so that 2 head-and-shoulder trophies from Panama and Caracas are missing from my photographic collection.

BEGINNING THE FOLLOW-UP

If a follow-up study is contemplated, as much information about the patient as possible should be collected. Patients and their families move about and are liable to get lost. Phone numbers change. Relatives die or get sick. Doctors also die or retire or lose track of the patients they refer. Names, addresses, and telephone numbers of patients' sisters, brothers, children and close friends are often useful. Employers, insurance companies, banks and attorneys may come in handy. I traced 1 patient after a lapse of 5 years (10 years after operation) by going from the most recent address to previous ones in Detroit until at the earliest one I found a lady who remembered the girl as living with her family in the apartment above. The father had worked for a certain company but had died and the family moved away. The lady called the company, got the bookkeeper, and this woman remembered receiving a card from the patient's mother the preceding Christmas. It was only a matter of minutes to get the present address in Indianapolis. After checking this by telephone I made arrangements to see the girl when I came her way next time. This time my camera worked and I have the trophy. The girl, previously a dreamy schizophrenic who had been hospitalized 7 years in West Virginia (the hospital could give me no information of her whereabouts), was regularly employed at a duplicating machine and had entered into an active social life centering around her church.

A near-miss is particularly disappointing. I had spent half a day in a hospital in Alabama interviewing and photographing some former patients and then drove eastward expecting to find a lady (whom I had last seen in Los Angeles) at the home of her son. I had located the son through his ex-wife who had moved from Florida to Georgia, but the son was not too helpful in correspondence. However, when I reached him by telephone he told me that his mother was in the hospital I had left 2 hours before. "I didn't know you wanted *her* address" was his only excuse.

FILING FOR REFERENCE

Large individual cards with a summary of the patient's history and progress, with successive photographs fixed to the back, are filed in numerical order in loose-leaf volumes. In addition, I maintain 2 files on 3 x 5 cards, 1 alphabetical, with addresses, telephone numbers, addresses and phone numbers of relatives—many relatives, and physicians. The other is arranged geographically, with the patient's name and number, date and latest address. When I plan a head-and-shoulder hunt I select a route on the map and send out a letter with a return postcard, as follows:

Letter: "I plan a trip from California to the East in a month or two and hope to stop by and see you, or at least talk with you by telephone.

I would appreciate it if you would let me know on the enclosed card how I can get in touch with you."

Card: Address (including street or box number, city or town, state, telephone number, day and evening) and request that the patient "Fill in below names and addresses of relatives or doctors if you think I might have trouble in locating you personally."

If the postcards are returned, all is well. If the letter is returned "Moved. Left no address," I try the next most likely relative on the list and so on down the line. If there is still no result, or if the card is not returned, I send a certified letter with return address requested. This costs money but is cheaper than a telegram or a telephone call. However, the telephone or telegraph company is more effective and obliging than the Post Office.

I lost track of a young woman some 5 years after lobotomy. She married and moved to a city in Virginia, but I could not find her there. Her mother has also moved. Through a call on a neighbor I learned that a lady a few miles away used to be friendly with the mother. This lady knew only the name of the town in Florida where the mother had moved. Ordinary letters were returned "Addressee unknown," but a certified letter gave the address, and on my trip through Florida I found the girl, deserted by her husband, at the home of her mother. I added another 10-year trophy to my picture album. The girl was regularly employed in a doctor's office and had matured very becomingly.

Letters supplement personal visits and photographs, but they are seldom very informative, particularly those written by the patients themselves. The accounts of relatives are often adequate but apt to be tinged with too much optimism or pessimism to furnish a clear picture of the patient. Specific questions as to convulsions, obesity, incontinence and other disagreeable phenomena may be entirely neglected. Mimeographed questionnaires to be checked by the patient as well as by a member of the family have some value, but many are not returned. It does little good to start a letter: "It has now been more than 5 years since your lobotomy and 2 years since your last report." Patients respond more adequately to a chatty personal letter in which I give some news of myself. Particularly to be avoided is the phrasing: "In connection with a research I am conducting on lobotomy . . . ." People, whether lobotomized or not, dislike being considered objects of research. I usually remind them of my former visits or visit, of the difficulty I had in finding the place, or the hot weather or cold weather, or the milkshake at the drugstore. I ask about parents or children and the pets and then more especially about their activities since the last visit or letter. The important thing is to get a response even though it is pretty meager. It sets the scene for a future meeting or correspondence.

Personal follow-up can become a hobby or a compulsion. Watts recently spoke of mine as a "magnificent obsession." Some of my picture cards have 2 or 3 pages filled with photographs showing the patient at successive stages postoperatively. Others are disappointingly bare. Some patients have sent me photographs of themselves from time to time. The women tend to look glamorous in these pictures as compared with my snapshots of them. I believe that a great deal can be judged from the candid shots that will be revealed only with considerable expenditure of time in personal interviews. My thesis has been almost from the beginning of psychosurgery that a neurotic or psychotic patient is sick in relation to society, his relatives, his job, his recreations, and his creative capacity. A photograph reveals maybe a smiling, friendly expression, or a withdrawn, oblique look, sagging lips and eyelids. Sometimes I can get only the top or back of the head.

People are apt to be more fluent in telling about their jobs and their families than they are about themselves, their frustrations, their introspections, and the like. After all, even the healthiest person can find something in life to complain about if he puts his mind to it. From the social standpoint it seems preferable to keep the conversation on the social level rather than to reconstruct the dynamic aspects. The visit will be recalled with greater pleasure on both sides, even if the motivations and psychologic intricacies remain concealed. The questions are practical ones. Is this patient employed or keeping house; are there any untoward symptoms such as convulsions, incontinence, irresponsibility in alcohol or money matters; are some of the previous complaints still present or have new ones developed? The more subtle expressions of hostility, preoccupation, delusions and hallucinations may come out in the course of a primarily social visit, but it is the degree of social ability or social disability that matters most.

The telephone is an invaluable instrument. When in a large city I call up a number of patients, pass the time of day with them, arrange to see a few, as time permits, and jot down on the card any changes of status or address, with a brief note on my impressions. Later I can dictate a note on a machine for filing with the patient's record. In smaller towns I telephone in advance so that the patient and the relatives may expect me and have the patient home from work, or cleaned up, if necessary, for my visit. Long distance calls have to take the place of personal interviews when I am pressed for time, as I usually am. Some time ago I asked Watts to track down some nearby patients by telephone, saying that it would probably require not more than 3 hours of his secretary's time. The information was forthcoming in due time, but with the penciled notation by his secretary: "Three hours? My foot!"

Time passes swiftly for me when I am on a head-and-shoulder hunt. I recall making engagements on successive days to visit certain hospitals in the Middle West. Three sons and I were traveling to the West Coast and back via station wagon, with camping equipment, cameras, dictating machine, case files, instruments and typewriter.

August 6. Lincoln, Nebraska, with Paul Royal. Interview patients. 8 transorbital lobotomies. Dinner at University Club. Speech.

August 7. Lv. Lincoln 6 a.m. 158 miles to St. Joseph, Missouri. Interview patients with Dr. Mary Frances Robinson. One TOL. Dinner.

August 8. Lv. St. Joseph 4 a.m. 254 miles to Cherokee, Iowa. With Dr. Willard C. Brinegar. Interview patient. 25 TOL. Talk to staff. Dinner.

August 9. Lv. Cherokee 5 a.m. 239 to Independence, Iowa. With Witte. Interview patients. 16 TOL. Talk to staff. Dinner.

Fortunately it was summer and daylight came early.

Permanently hospitalized patients are the easiest to follow, and the least gratifying. Recently I revisited Eastern State Hospital, Williamsburg, Virginia, where I had performed 145 transorbital lobotomies in previous years. By arrangement with Dr. Joseph E. Barrett, the Superintendent, I secured a record number of follow-up photographs, copies of which I sent to him. The photographs were not such as to yield much enthusiasm for lobotomy. Some of the patients were scarcely recognizable after 3 to 5 years because of obesity or advance into senility or deterioration. It is always rather harrowing to me to return to a hospital and see the failures. Some of the patients indeed showed a more pleasant expression, but they were still hospitalized, unable to make the grade for life outside. My discontent was modified by a chief nurse: "I wish you'd come back and operate some more, Dr. Freeman. The drugs are quieting them down, but they're not getting them home." It is obvious that the hospitalized patients are the failures. The doctors at the hospital seldom see the successes. Unfortunately, time does not permit the head-and-shoulder hunt of state hospital patients who have adjusted on the outside.

WEST VIRGINIA STUDY

The summer of 1953 was an exception. The previous year I had visited the 4 state hospitals in West Virginia and had operated upon 228 patients. A year later 85 patients were out of the hospital. I located 82 of them. This was somewhat of a task. Going first to the hospitals I obtained the latest addresses and on a large map of the state pasted tabs bearing the patients' names. The larger cities made no particular difficulties. Sometimes it meant climbing a rutted road on foot to a dwelling perched precariously on the edge of a cliff. Sometimes it meant asking around at various homes to find out where the people had moved. There was less suspicion in the cities than in the country, but the country furnished more picturesque encounters. "Over the mountain and down the hollow" was an oft-repeated phrase. I crossed streams on swaying cable bridges where coal-blacked water flowed a few feet below. I encountered the smelly aftermath of a flash flood where carpets and upholstered chairs were festering in the sun. I visited one home 'way up a creek to see a patient. "Yep, sure, he's all right. He comes to meals. You'll find him in the barn." I rounded the corner of the barn and found Hubert on a pile of straw, face down, shoeless, laughing and gesticulating as though at the funniest movie ever. I could not distract him long enough to tell me what work he was doing. Yet when I came by there again the following year he was farming intelligently and taking the produce to market, buying necessaries and handling his money effectively.

One interview was carried out with the patient half out of the second story window. The door and all the other windows had been sealed by the family when they went to market. Needless to say, this patient, who didn't know me from Adam but was glad to have anybody to talk to, was hardly an asset to the home. Another place was Rosby Rock, where a row of 22 mailboxes was strung along at the crossroads. But I had no difficulty finding Gladys. Everybody knew everybody else. Following a number of successful lobotomies I wrote Edward Reaser, Superintendent of Huntington State Hospital, offering to operate on 2 of his most difficult patients. The ones he sent to Washington fully satisfied us. Gladys could not be persuaded to wear clothes and was photographed before operation with only a leather belt around her waist. When I saw her 5 years later she was managing her home and 2 children without help from her husband who had deserted. Another 5 years and I learned that she had died of diabetes. The other patient, keeping up a constant stream of stentorian invective after 12 years of hospitalization, was moderately improved as far as her chronic manic state was concerned but was never able to leave the hospital. She died in her ninth postoperative year of a stroke.

John was another West Virginian. He was brought to Washington shackled hand and foot. When released he attacked personnel and smashed everything he could reach, all in response to incessant commanding voices. For 2 years after prefrontal lobotomy he continued his assaultive behavior, breaking the arms of 2 attendants. When Dr. Samuel Hamilton, on a visit to the hospital, suggested that John be taken out of restraint, the man made an immediate attack on Dr. Hamilton and was put back in restraint. Late improvement occurred and John was released from the hospital, found part-time work, got in trouble with alcohol, and was returned briefly to the hospital. For the past 15 years, however, he has been living outside the hospital and at times employed. He wrote me with considerable pride when his son was graduated from college and played professional football.

Christmas Cards

Christmas is a time for general remembrances. I try to send out my cards early in December so as to give time for the recipients to acknowledge the cards if they feel like doing so. Approximately a third of the patients respond and often write little notes to give me news of their progress. If my cards are returned I am alerted to a change of status or address and can then follow up the card with a letter. After Christmas the Post Office can make a bit more effort in forwarding my card or letter and a number of additional replies are forthcoming.

When it is difficult to locate a person in a given locality the Post Office is of no help at all. They are forbidden to give out a forwarding address. The certified mail will get many of these addresses. At other times the office of the chief of police or the gas and electric company will oblige. Sometimes there is a particularly grateful patient in the same city who will make an effort to contact the patient. Rarely I have made use of the credit bureau or a lawyer, though disclaiming any financial interest in the patient.

VETERANS

Veterans are sometimes difficult to follow up. The rules are rather strict, both for those in hospitals and those released, against giving information without authorization from the relatives or guardians. It is easy enough to visit the hospital as a friend of the patient, however, and the staff members of many of the VA hospitals have been helpful and cordial. I located another patient named John, who had been in 3 different veterans hospitals in Wisconsin and Minnesota, by sending a letter to him in care of the regional office, asking him to allow them to give me his address. All he had to do was to sign his authorization. Things went smoothly after that. After a lapse of 7 years, in spite of repeated failures to locate him, I found that he was working and married, 10 years after lobotomy. I had tried 2 sisters but they had both moved, so this time I obtained their new addresses, along with John's. For a while, at least, he would appear to be safe in the fold. Again a photograph was added.

DEATHS AND OTHER CHANGES

There is a certain satisfaction in writing finis to a case when the patient dies. That satisfaction is doubled when the cause of death is clearly stated, and redoubled when an autopsy is performed and the specimen available for study. Another Gladys was a difficult patient, not because she eluded me but rather because she importuned me for barbiturates during her first postoperative year. Because she had tried suicide before operation, I was reluctant to meet her demands. She went to Florida and wrote me that she was selling her blood to buy sedatives. Finally a note came from her mother, whom Gladys hated, saying that her darling daughter had been stricken with appendicitis and had died. Unconvinced, I wrote to the Division of Vital Statistics in Dade County and received the information that she had died of barbiturate poisoning. I have a fine movie in color and sound of this patient before, during and after lobotomy, but I shall never show it again. How could she do that to me!

As the follow-up study continues year after year patients drop by the wayside and the survivors grow older. Also their relatives grow older and the job of carrying on is given into other hands. Some patients have been cared for at home by devoted relatives who have sacrificed other members of the family to maintain the patient in presentable condition. One of the frequently voiced concerns of mothers of patients is that they themselves are growing older and don't know what will happen to the patients when they are out of the running. This is one of the minor satisfactions in a long follow-up—the counseling of these older people, encouraging them to continue with their tasks as long as possible, and assuring them that when the time comes for them to lay aside the reins means will be found of caring for the operated patient. The death or disablement of the strong member of the family does not always mean that the patient is headed for an institution. Once in a while, indeed, almost the opposite occurs. The patient, previously captious, irresponsible, defiant and a trial to the family, emerges with a new lease on life and proceeds to find a job. A move to a new location may likewise bring about a marked change for the better. Financial provisions are often made by aging relatives for the patients so that they can get along adequately in foster homes. Such changes in status sometimes make the job of follow-up a bit more difficult.

Difficulties are magnified if the relatives are less than coöperative. I never did get a later photograph of Ann though I have some valid information about her. She married and moved to Texas following her recovery and has 2 healthy children. She was unaware that she was ever operated upon, and so was her husband, until she began having epileptic seizures more than 10 years after lobotomy. At that time her husband was overseas and Ann was living with her family. According to her brother, who telephoned me from New York, when Ann was told she had had a lobotomy she asked why they didn't tell her before. She had noticed the little pits in her head but had no recollection of her psychosis or the operation. This case also shows the need for long-term follow-up because the seizures did not begin for a decade after prefrontal lobotomy. Some relatives blame all the difficulties that the patient experiences upon the operation itself. They are disgruntled and caustic. Sometimes they refuse information and sometimes they continue writing their complaints month after month. It does no good to try to recall to them the condition of the patient before operation. They are not open to conviction—to the point where I sometimes think the wrong person was operated upon. Information about some of these patients has to be obtained by a roundabout approach, through some other relative or from the family physician if he can be contacted. Often, however, a direct approach to the patient is eminently successful. In one such case things were going very well until I got out my camera. Then the patient's mother objected strenuously, saying her son had suffered so much that she didn't want him to be subjected to any more torture. That was the end of that.

EUGENE

Eugene came to me from the Middle West with limbs trembling in fear and a haunted look in his eyes. He seemed an ideal candidate for lobotomy since he was obsessed with the idea of killing himself. But he was in uniform and the War was in full blast, so that no operation could be undertaken. Two years elapsed. The War was over. He now had the additional obsession that only lobotomy could relieve him. Since he had been under treatment both in the Army and in a veterans hospital without relief I was inclined to believe him. Therefore he underwent lobotomy in 1946. He was difficult to follow. He did not answer letters. His mother disliked psychiatrists and refused to let me know how to get in touch with him. The VA gave no help. A sister was noncommittal. Another 2 years elapsed and I was surprised when he came to see me from a distant city, bringing a long, narrow box. He was still under some tension but managing to maintain himself as a mechanic. He would not discuss his domestic situation. At the end of the interview he placed the box in my hands. "Take this, Doc," he said, "I've decided not to kill myself." He did not wait to see me open the box, which contained an unused .303 Savage carbine and a box of cartridges.

After that it was a long time before I could contact him again. A couple of times I phoned him when passing through Toledo, but was told that he was at work. I explained that I had some of his belongings and wanted to return them, but even this bait failed to work. Finally I reached him by phone. "Is that you, Doc? You're the one that operated on me? Well, that sure is nice of you to phone me. I wish I could see you sometime." He was working regularly, living at home, adjusting better in every respect, although still somewhat seclusive. When I mentioned the carbine he replied: "No, you keep it, Doc. It's mighty nice of you to offer, but I'd rather you kept it. I don't want it nohow." It's been several years since I had a chance to snap Gene's picture but I'll get it some day. Meanwhile I have a nice souvenir of a death weapon that might have been.

PSYCHIATRIC PATIENTS ARE DIFFERENT

There are several general aspects of the follow-up problem that can be analyzed. Psychiatric patients and their families are not proud to be enumerated, as are those with coronary thrombosis, diabetes or even tuberculosis or cancer. The last diseases have only rather recently become respectable, while there is even a sort of glamor attending the diagnosis of coronary thrombosis. The great national associations concerned with the heart, diabetes, tuberculosis and cancer are aiding greatly in the fight against those diseases. The public is kept well informed and the sufferers enjoy a certain distinction that is lacking in cases of mental disorder. There are registries of certain other diseases, national in scope, with possibilities of follow-up throughout life and eventual finishing off with a death certificate or autopsy protocol. Many of these registries have been started by one man, such as the registry of brain tumors inaugurated by Cushing. The eye tumor registry of the Armed Forces Institute of Pathology surpasses all in completeness. The life history of such lesions has been established in such detail that new accessions can be plotted against results in previous cases in sufficient number to warrant considerable confidence in the prognosis.

In dealing with tumor material (and registries also include bone, bladder, kidney, ovarian, lymphatic and many other systems) the anticipated survival is in terms of months to years rather than decades, so that periodic surveys show gradual or even rapid loss in numbers, with eventual extinction.

Mental disorders present problems of a different magnitude. Few of them are of themselves fatal, and many are compatible with prolonged survival. In my visits to various mental hospitals I have been introduced to patients who have spent their mature lives in the same institution. I saw John Washington, aged 90, who has spent 71 years in St. Elizabeths Hospital, and a patient in Maryland who had survived 75 years. The extinction curve of schizophrenic patients, that is, of patients dying in the hospital, crosses the halfway line at 28 years.

How much more difficult to follow patients after their release from the hospitals! The attempt is being made here and there to build societies termed generically "Friends of the Mentally Ill," but the objectives are the furtherance of adaptation to life outside an institution and the persuasion of possible employers to take on individuals who are handicapped by previous residence in a mental hospital. Alcoholics Anonymous is rather outside the field of the mentally ill, however much this organization contributes to the rehabilitation of the alcoholic.

Then there is the attitude of the patient to his disorder and to the altogether unpleasant experiences that he went through before being released from the distress of the disease and the concomitant hospitalization. Previously psychotic patients seldom enjoy reviewing their past experiences. They are only too eager to forget, even to escape from the memory of their harassment. Moreover, there is actual amnesia for great periods of the psychosis. Ten years may be telescoped into a few weeks.

Psychotic patients operated upon many years after hospitalization, even though they recover sufficiently to return home and remain there, are ill equipped to enter energetically into a renewed social existence. The fact that so many of them do is a credit to them and to their families. Furthermore, for each member of the family affected by a psychosis there is apt to be one who is making a borderline adjustment and another who cuts himself off from the sicker individuals. The problem of adjustment can be met at least in part by moving away from the previous environment and attempting to start fresh.

Separation, divorce, death of parents or spouses, migration of children and all the various vicissitudes to which patients and their families are exposed make for difficulties in follow-up with which many of us are familiar. Ex-psychotic people are difficult to live with in many situations, yet family cohesiveness and support are often strong although possibly distorted to different axes when the family breaks up.

As a general rule, the lobotomy patient is easy to follow up. Part of the effect of operation is to promote ease and friendliness in social interaction. The patient is not necessarily ungrateful, but, on the other hand, is often quite unwilling to make the effort to meet the doctor part way. A bus trip of 20 miles would have brought a patient to a meeting place with me a thousand miles from my home, but I could not persuade the patient to come. On another occasion I tried to get an Irishman to meet me at the Shannon Airport, which would have meant a trip of 50 miles for him. But he was too preoccupied with the menace of Russia (to judge from his yearly letters) to accommodate himself to my wishes. Yet I have many letters from former patients expressing the hope that next time I pass through such and such a town I will stop by to call, or to take dinner. On achieving a visit, patients are almost invariably agreeable, pleased to receive a call, perhaps flattered that the doctor has taken such an interest in him. If not the patient, then the family is delighted to be able to show how well the patient is getting along. But not always. Sometimes the relatives are full of complaints about the way the patient is behaving while the patient himself sits grinning, like an interested spectator, hearing tales of somebody else.

The importance of prolonged follow-up in patients with mental disorders is shown by their reactions to major and minor disturbances in their domestic and social patterns. How patients will adjust to aging, retirement, marriage, parenthood, changes of location, and of jobs will reveal the stability of the personality after treatment. For a while Watts and I were plagued with a series of deaths in families of our patients, and relapse with hospitalization occurred in several instances. Then the opposite of the medal appeared. Some patients, following the death of spouses or parents, took a new lease on life, found unsuspected talents for making their own way, and altogether adjusted better than they had before.

Marriage proved a boon in many instances, although divorces have been rather frequent among younger patients who married before their breakdowns. In some instances it seemed that one of the factors in securing operative permission from the spouse was the hope that the patient would recover sufficiently to be served with divorce papers. Most of the postoperative marriages have been stable. This is a credit to both parties, since only rarely has the history of psychosis and operation been withheld from the patient's fiance. Not infrequently the young marrieds continue to live with the patient's family. The bridegroom may lead a rather parasitic existence in the case of well-to-do families, but when he asserts himself sufficiently and establishes his own home, the woman's family adjusts in varying degrees. A woman who marries a lobotomized patient is apt to be submerged in the patient's family. I recall one man who was operated upon after many years of a schizophrenic existence. He later married and fathered a child. At the time of the evaluation, some 5 years after operation, the child was too young to be sure of, but of the family constellation, mama, papa, wife and patient, the patient appeared to us to have more common sense than the rest of them combined. The physician brother of a young schizophrenic girl reported some 7 years after operation that his sister was making extraordinarily good adjustments in her marriage.

Bearing children is another stabilizing influence in many women, even when the children are born out of wedlock. Several instances are known in which the results of operation seemed rather dubious, and the culminating disaster was an illegitimate pregnancy. I have always advised noninterference with the pregnancy and have been pleased at the eventual results. The pregnancy and delivery have seemed to give an additional push to a patient who was making a marginal adjustment, with the result that the woman was able to secure employment and maintain her independence. The children were adopted. Thus far (and some of the children of patients born after lobotomy are now teenagers) no abnormalities have been noted. I recall visiting one woman patient in a small town and seeing the little boy chasing his sister, armed with his mother's douche syringe, somewhat to the embarrassment of both parents.

CONCLUSIONS

The long-term follow-up of lobotomy patients is easier than that of most psychiatric patients because of the greater friendliness and unselfconsciousness.

The personal approach is almost a *sine qua non,* later being followed by Christmas cards, telephone calls, etc., if visits are impracticable.

Methods are described for keeping in touch with patients who move about from place to place. Lost patients, like lost pieces in a picture puzzle, stand out with glaring distinctness.

The risks have possibly been emphasized too strongly in the various anecdotes. Actually the risks of travel, estimated at half a million miles, have been greater.

The why's and wherefore's of such a follow-up attempt are quite personal, maybe interpreted as a hobby, a compulsion, or an expiation. At any rate, the follow-up brings rich rewards to a confirmed peripatetic who enjoys the open road.

The results of the study confirm the belief that lobotomy is worthwhile, because it contributes notably to the social effectiveness as well as contentment of the patient and to the restoration of solidarity to many disrupted families.

The photographic aspects of the follow-up are amateurish but serve better than technical descriptions to reveal the changes in patients brought about by lobotomy.

Complete follow-up of 500 prefrontal lobotomy patients in the 10- to 20-year period was reported before the Southern Medical Association in November 1957.[1]

BIBLIOGRAPHY

1. Freeman, W.: Prefrontal lobotomy: final report of 500 Freeman and Watts patients followed for 10 to 20 years. South. M. J., 1958, **51**, 739.

THE ROLE OF MEPROBAMATE IN ORTHOPEDIC SURGERY

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TREATMENT of traumatic injury is often complicated by muscle spasm around the area of involvement. Until introduction of mephenesin in 1947 no single muscle relaxant then in use had been satisfactory in orthopedic surgery.[1] Clinical trials of mephenesin revealed it was not entirely suitable because of short-lived activity. This necessitated large and frequent doses for complete and continued muscle relaxation.[2]

Berger[3] in 1954 first described meprobamate, a derivative of mephenesin. Animal studies showed that 100 mg. per Kg. of meprobamate injected intraperitoneally produced paralysis lasting several hours with subsequent muscle relaxation extending for about 24 hours. A comparable dose of mephenesin produced paralysis for about 15 minutes with after-effects that lasted only 1 hour.

Clinical work since 1954 has confirmed the well known anti-anxiety and calming properties of meprobamate.[4] Several investigators have concluded that meprobamate is most valuable in the treatment of muscle disorders,[5, 6, 7] but information is scanty on the role of meprobamate in orthopedic practice.

Toxic and sensitivity reactions to meprobamate are not frequent. Scattered cases of urticaria have been reported. Headache and nausea have been noted frequently. Fatigue accounts for about one-third of all side-effects reported to date. Drowsiness is seen more often. But while meprobamate obviously is not a drug for indiscriminate consumption, we agree with Polner[8] that "there is hardly a useful drug on the market that does not give this small percentage of reactions."

STUDY CONDITIONS

Sixty-eight consecutive, unselected patients were treated in private practice for orthopedic disorders. All received meprobamate* in varying doses as an adjunct to management. Thirty-seven patients had some form of bony damage, most often fractures. Thirty-one patients suffered injury, usually traumatic, to muscular, cartilaginous or ligamentous structures. Table 1 lists the diagnoses.

TABLE 1
Diagnosis of 68 Orthopedic Patients Treated with Meprobamate

Primary Diagnosis	Patient Type		Total Patients
	Hospitalized	Outpatient	
Osseous disorder:			
Fractured joints or limbs	13	2	15
spine	5	4	9
pelvis	2	1	3
nose	1		1
Arthritic disease	2	4	6
Degenerative processes	2	1	3
Cartilaginous, ligamentous, or muscular disorder:			
Torticollis	1	2	3
Injury to cervical, lumbar, and/or sacral spine	1	12	13
Multiple sprains		2	2
Bunions	3		3
Bursitis		1	1
Tenosynovitis		1	1
Torn knee cartilage	6		6
Ruptured shoulder cuff	1		1
Ruptured flexor tendon	1		1
TOTAL PATIENTS	38	30	68

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* Meprobamate (2-methyl-2-n-propyl-1,3-propanediol dicarbamate) is available from Wyeth Laboratories, Inc., Philadelphia, Pa., as Equanil.

Diagnoses in patients with bone damage were considered typical of those commonly seen in orthopedic practice. Twenty-eight patients with fractures were treated, of whom 5 underwent surgery. In 3 of 6 patients with arthritic disease the process involved 1 or both knees. Two other patients had generalized arthritis. The sixth had tenocapsulitis of the shoulder.

Of 37 patients with bone damage 25 were hospitalized for 2 to 95 days. Following discharge from the hospital 6 of these 25 received outpatient treatment for 24 to 249 additional days.

Sprain of the cervical, dorsal or lumbar spine was the primary diagnosis of 18 of 31 patients with nonosseous disorders. Of 31 patients with cartilaginous, muscular or ligamentous damage 13 had a hospital stay of 1 to 92 days. After hospitalization 2 patients (both with torn knee cartilage) received outpatient treatment, 1 for 17 days and the other for 24 days.

MEDICATION

Meprobamate was administered in varying doses to produce maximal muscle relaxation without interference with normal patient activities. Each patient was questioned frequently. Dosage was adjusted in accordance with response.

Dosage ranged from 600 mg. to 3,200 mg. of meprobamate daily. The mean dose was 1,600 mg. Thirty-nine patients were given 400 mg. 4 times daily.

Twenty-two patients receiving 800 mg. of meprobamate 4 times daily also were given 1 25 mg. tablet of mephentermine with each 400 mg. tablet of muscle relaxant. Mephentermine is a pressor agent with amphetamine-like properties that acts to dispel drowsiness and fatigue without producing excitation.

Analgesics were permitted since the primary intent was observation of muscle relaxation and not reduction of pain.

REPORT OF CASES

Patient response was charted as excellent, good or fair. Poor response and no response were omitted as categories from tabulation, since all patients displayed at least moderate muscular relaxation.

Excellent and good responses were defined as complete relaxation of skeletal muscles without impairment of muscle function. Excellent response was applied only to those patients who, in my opinion, recovered from their orthopedic injury more rapidly and responded to rehabilitation better than would ordinarily be expected, considering the nature and severity of their disorders.

TABLE 2

Response to Meprobamate Therapy in 68 Orthopedic Patients

Disorder	Response (Number of Patients)			
	Excellent	Good	Fair	Total
Osseous disorder:				
Hospitalized	13	11	1	25
Outpatient	3	5	4	12
Subtotal	16	16	5	37
Percentage	43	43	14	100
Nonosseous disorder:				
Hospitalized	8	5		13
Outpatient	13	4	1	18
Subtotal	21	9	1	31
Percentage	68	29	3	100
Total	37	25	6	68
Percentage	54	37	9	100
Cumulative percentage	54	91		

A fair response was tabulated when muscle spasm was greatly reduced but still present.

Presence or absence of muscle spasm was determined by clinical examination and palpation of the affected muscle groups, and by day-to-day testing of reflexes and range of motion where possible. Electromyographic technics for evaluating muscle tone undoubtedly have their place, but the diverse conditions seen in this series make such methods unreliable.

RESULTS

From table 2 it is apparent that patients with direct tissue injury responded to meprobamate better than those with muscle spasm originating in osseous damage. Tables 3 and 4 carry the added implication that ambulatory patients tended to respond more dramatically to meprobamate than hospitalized patients.

SIDE-EFFECTS

Side-effects other than drowsiness were absent in this study. Drowsiness was inconsequential and when present was easily controlled with mephentermine.

TABLE 3

Response of 30 Orthopedic Outpatients to Meprobamate Therapy

Primary Diagnosis	Number of Patients	Duration of Therapy, Days		Meprobamate Dose, Mg./Day		Response (No. of Patients)		
		Range	Average	Range	Average	Excellent	Good	Fair
Osseous disorder:								
Fractured hip (postoperative prosthesis fitting)	1	52		1,200				
Colles' fracture	1	2		1,600			1	
Ruptured intervertebral disc	2	7–94		1,600–3,200			1	1
Compression of spinal fracture	2	24–53		1,600		1	1	
Pelvis	1	23		3,200			1	
Arthritic disease	4	11–250	164	1,200–1,600	1,400	1		3
Postmenopausal osteoporosis	1	74		1,600			1	
Cartilaginous, ligamentous, or muscular disorder:								
Torticollis	2	31–81		3,200		2		
Cervical injury	4	15–150	80	1,600	1,600	3	1	
Cervical and lumbar injury	3	24–92	55	1,600–3,200	2,100	2	1	
Lumbar injury	3	3–123	50	1,600	1,600	2	1	
Lumbosacral injury	2	28–77		800–3,200		2		
Multiple sprains	2	35–255		1,200–3,200		1	1	
Bursitis	1	62		1,600				1
Bicipital tenosynovitis	1	51		3,200		1		
TOTAL PATIENTS	30					16	9	5

Patients with arthritic disease responded less satisfactorily than those with other conditions in the series. Indeed, of 7 "fair" responses, 4 were cases of arthritis. Two arthritic patients received 1,200 mg. of meprobamate daily, while 1,600 mg. was given to the third and 3,200 mg. to the fourth.

Of the remaining 3 patients with a fair response, 1 received 600 mg. of meprobamate and 2 were given 1,600 mg. daily. One of these 2 last patients refused to undergo surgery for treatment of a ruptured intervertebral disc.

In a few cases the dose was reduced to avoid drowsiness. Muscle relaxation then became less profound, and the dose was increased to the original level and mephentermine added to combat drowsiness.

COMMENT

Two features distinguish this study: (1) the tailoring of meprobamate dose to meet individual patient needs, and (2) administration of a mild stimulant with higher doses of meprobamate to counteract drowsiness. The latter goal was successfully attained.

However, when adjusting dosage to patient response, it would appear that clinical appraisal was overly conservative. Three of 7 "fair" responses were noted in patients who received 1,200 mg. of meprobamate or less. These doses appeared clinically adequate at the time, but in retrospect it is reasonable to presume that an increased dose would have improved response.

Among patients with allied orthopedic conditions, those receiving larger doses of meprobamate tended to respond better than those given smaller doses. Of 5 hospitalized patients receiving treatment for vertebral or intervertebral injury, 2 patients given 3,200 mg. daily responded excellently. In another example, 2 hospitalized patients with limb fractures receiving 3,200 mg. of meprobamate daily responded excellently, while 2 similar patients showed only a good response to 1,600 mg. daily.

Although the presence or absence of pain was not considered in evaluating response to meprobamate, pain was controlled after meprobamate was given to some patients. In others, pain was diminished. When pain continued after administration of the muscle relaxant, the patient appeared more tolerant of the discomfort than before meprobamate was given.

TABLE 4

Response to Meprobamate Therapy among 38 Hospitalized Orthopedic Patients

Primary Diagnosis	Number of Patients		Duration of Therapy, Days			Meprobamate Dose, Mg./Day		Response (No. of Patients)		
	Operated	Total	Hospital	Total	Total Average	Range	Average	Excellent	Good	Fair
Osseous disorder:										
Fractured elbow		2	11–63	11–110		600–3,200		1	1	
knee		1	23	54		1,600			1	
hip	2	6	4–95	4–95	61	800–3,200	1,700	4	2	
limbs	2	4	3–83	3–83	50	1,600–3,200	2,400	2	2	
spine	1	5	3–151	3–218	90	1,600–3,200	2,240	3	2	
pelvis		2	35–82	82–214		1,600–3,200		1	1	
nose		1	2	72		1,600		1		
Arthritic disease		2	32–84	56–84		1,600–3,200			1	1
Patellar chondromalacia		2	41+	?	?	1,600		1	1	
Cartilaginous, ligamentous, or muscular disorder:										
Torticollis		1	6	6		1,600		1		
Lumbosacral injury		1	62	62		1,600			1	
Bunions	3	3	2–7	2–7	4	1,600–3,200	2,133	2	1	
Torn knee cartilage	4	6	1–92	1–92	33	1,600	1,600	4	2	
Ruptured shoulder cuff			1	91	91		3,200		1	
Ruptured flexon tendon		1	22	22		3,200		1		
TOTAL PATIENTS	12	38						21	16	1

The varied conditions among the 68 orthopedic patients in this series do not permit definite conclusions; yet it is obvious that meprobamate effectively controlled muscle spasm without disturbing autonomic function in all patients. In 91 per cent of the patients complete skeletal-muscle relaxation seemed to occur. Meprobamate in all respects is superior to mephenesin. The drug is effective orally and is relatively free of gastric side-effects. The effect of 1 dose of 400 mg. lasts about 6 hours.

SUMMARY

In 62 of 68 patients with orthopedic injury, muscle spasm was promptly and completely abolished after administration of meprobamate. In all cases muscle relaxation was sufficient to permit surgical or nonsurgical repair of the injury and to encourage rapid healing. Mephentermine was given with higher doses of meprobamate in order to combat the only side-effects (drowsiness or fatigue) when they appeared. The muscle relaxant property of meprobamate, its anti-anxiety effect, and its low toxicity recom-

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MEPROBAMATE FOR ALCOHOL ADDICTION

A Psychotherapeutic Adjunct

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MANY PATIENTS come to the D. C. Alcoholic Rehabilitation Clinic for relief of a hang-over, for hospitalization when they have delirium tremens, to avoid a jail sentence, to pacify an irate spouse, and more recently for a supply of a tranquilizer drug.

Because of the basic idea that their cure depends on changes in the attitudes of others, alcoholics seldom realize that the problem lies within themselves. If their loved ones and some additional people were different, they would be well. For this reason, introspection is delayed until the last possible moment. Any effort to understand and modify their own reactions to life (engage in psychotherapy) just does not make sense.

Many alcoholics never understand that they keep themselves desolate, afraid, and intoxicated. How to give these patients a reason for accepting psychiatric treatment remains an unsolved problem.

Motivation for change comes exclusively from the consequences of alcoholism. The capacity for suffering marital, occupational, physical, financial or social disaster varies in alcoholics. Rarely do they become seriously engaged in psychotherapy (solving personal problems) when self-destructive results first begin to follow their drinking. The vast majority go on, dissipating their human and material security, until they become desperate. Even then, some, like the skid-row alcoholic, never apply for help.

The alcoholic's basic problem is a severe sense of rejection (feeling not wanted, not appreciated, uninteresting, undesirable, unattractive, unintelligent) in many areas of his life. As one patient put it, "People don't like me enough so that I can like myself." Anything an alcoholic accomplishes is never enough to make him feel liked and self-confident for very long. No one does enough for him, or understands and cares for him adequately. Praise and love are neither elaborate enough nor sufficiently consistent to permanently overcome the patient's deep conviction that he is no good. To top it all off, people are critical, angry, distant and unreasonable.

Continued failure to get such out-of-this-world consideration causes increasing rage and increasing rejection of people. Thus the patient comes to feel completely unwanted, alone and frightened. He comes to the doctor or clinic with his need for an all-encompassing sort of love unfulfilled. Since the most competent and dedicated physician could never give him all he wants, psychiatry is at once a disappointment to him.

In addition to this great void in his life, other resistances to treatment are present. One is the occupational and social stigmatization often attached to the simple admission of an alcoholic problem. Then, too, in certain quarters incidents precipitating binges are regarded as merely excuses for drinking. Castigation by a boss, excessive demands of a loved one, frustration and disappointments in any area of one's life appear to the average person to be excuses for drinking.

In the fear-ridden inner reality of the patient such incidents become the triggers of acute alcoholic episodes. They make the difference between anxiety and panic, depression and hopelessness, aimlessness and confusion.

When these events are considered as rationalizations or a lack of will power, they shame the alcoholic and make him more resentful and less accessible. Since the alcoholic suffers severely from a sense of worthlessness, deriding him makes him drink more. When properly regarded as initiators of insight, these mishaps become tools for the patient-therapist's working out of underlying emotional problems.

The lack of confidence of the alcoholic is reflected in his self-absorption; i.e., he worries about himself. He appears as an unfeeling, ungrateful, unreliable, inconsiderate and demanding person. This is not, however, by choice. He would rather, like the rest of us, have the good will of people. Unfortunately, his emotional experiences in childhood made him feel unwanted and no good. He was seldom, if ever, able to please his mother and father or either, nor were they often satisfied with him.

This parental dissatisfaction gradually became a part of the patient's attitude toward himself, resulting in feelings of inferiority. To overcome these feelings, the patient engages in a never-ending search for *the* person to neutralize such feelings.

Since no one has complete understanding or the time to satisfy all the needs of another, the alcoholic will always end up bitterly disappointed. Imperfections, immaturities of others, will continue to be interpreted as rejection, and trust of others (to always appreciate his needs) can never be of long duration.

Relief of his loneliness and neutralization of his resentment of the shortcomings of others is accomplished by a binge. To settle for the non-utopian human values offered to all of us is impossible for the alcoholic. To be assertive or to tell others how hurt, lonesome, disappointed, and frightened he feels is not even considered. He collects injustices, and in his spree says, "To hell with everybody. No one cares enough to make me like myself."

The continued selfishness and self-disregard of the alcoholic eventually make people lose interest and prove to him that "no one gives a damn."

Because of his rejection-proneness and an unconscious proneness to reject, he soon comes to feel that "the bottle is my only friend." He is unable to endure adult interpersonal relatedness.

The difficulty of seducing the alcoholic into psychotherapy can be seen in table 1. The Clinic offers a minimum of 52 hours of individual psychotherapy a year, plus the same number of group therapy sessions.

TABLE 1

Statistical Analysis of 79 Patients

	Psychotherapy	Meprobamate Administration	
		Previous Psychotherapy	New to Psychotherapy
Total patients	79	29	34
Physical, diagnostic (psychiatric), intake, completed	54	28	28
Psychotherapy started	56	29	30
Hours of therapy	12.1	19.8	12.8
Patients not returning after first visit to Medical Department	23	1	4

In this series, there was an overall average of 14.9 therapy sessions per patient per year, demonstrating the poor motivation of alcoholics.

Of 79 patients admitted to the Clinic and not receiving a tranquilizer, only 56 started psychotherapy. Of these, 23 patients did not return after the first visit.

In sharp contrast, of 29 patients returning to psychotherapy and given meprobamate, 28 did return after the first psychiatric session.

Only 4 of 34 new admissions placed on meprobamate failed to make more than 1 psychiatric visit.

The chart shows a significant boost of total therapy hours per year in readmissions given meprobamate treatment.

Ninety per cent of meprobamate-treated patients completed the pre-psychiatric work-up, as compared to 68 per cent of routine admissions.

The dose of meprobamate varied from 800 mg. to 4,800 mg. per day. For increasing anxiety on a top dose of meprobamate, phenobarbital ($\frac{1}{4}$ to $\frac{1}{2}$ grain 4 times a day) was added. Clinically this small dose of barbiturate seemed to greatly potentiate the quieting effect of meprobamate without appreciable cortical dulling.

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THE TREATMENT OF TRAUMATIC SCARS BY DERMABRASIVE SURGERY

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MODERN ABRASIVE surgery, which was introduced by Kurtin in 1952, was originally designed as a method of cosmetic repair for the pitted scars resulting from acne. As the operation became more popular many operators began to adapt it to the correction of other cosmetic defects. In fact, Kurtin[1] himself, before his untimely death, had used and advocated it in many conditions other than postacne pits. It soon became evident that it was the operation of choice for the improvement of disfiguring scars which frequently result from windshield cuts and other accidents. Only too frequently the plastic repair of wounds of this type are performed under difficult situations in emergency rooms or in doctors' offices by interns, residents and physicians, who are more concerned with rapid closing of wounds than with meticulous approximation of the cut surfaces which would yield the best cosmetic results. On many occasions there is no suturing of wounds and they are allowed to heal by granulation. The resulting scars under these circumstances may be rough, irregular, puckered and overlapped. Disfigurement following such repair frequently results in major cosmetic defects with serious psychologic and financial repercussions.

The psychic trauma which results from a major facial cosmetic defect produced by these scars does not have to be elaborated on since it is well known to all. In addition, the effect on the emotional being from the subsequent plastic repair of such scars with its contributory components of fear and anxiety is considerable although it varies markedly in different individuals.

The financial considerations in such plastic repair are by no means minimal. The cost of hospitalization, anesthesia, and surgery is usually quite substantial. Therefore, an operation which can be done as an office procedure without, in many cases, loss of time from work and with good to excellent results is certainly to be preferred to the more elaborate methods. The postoperative period after abrasive surgery is not complicated by pain, dressings, and loss of time. Since most of the operative sites occupy only a partial surface of the skin, it is possible for the patient, after the first 24 hours, to go back to his normal work.

Enough time has elapsed since Kurtin first introduced skin planing to thoroughly evaluate the effectiveness of the operation. I have done over a thousand abrasive procedures on many and various cosmetic defects, and have found no reason to modify the enthusiasm with which this therapeutic modality was introduced.[2] On the contrary, my enthusiasm has increased with the improvement of the technic by many operators and with the results obtained.

Cosmetic defects which can be treated successfully by abrasive surgery[3] are:

1. Pitted scars resulting from
   a. Smallpox
   b. Chickenpox
   c. Furunculosis
2. Hypertrophic and deformed scars
   a. Post-traumatic
   b. Resulting from acne keloidalis
   c. Keloidal
3. Nevi
   a. Multiple intra-epidermic nevi
   b. Nevus flammeus
   c. Nevus unius lateralis
   d. Multiple spider nevi

4. Pigmentations
    a. Chloasma
    b. Lentigines
5. New growths
    a. Keratoses
    b. Adenoma sebaceum
    c. Verrucae
6. Miscellaneous
    a. Telangiectasia from most causes
    b. Rosacea and rhinophyma
    c. Active lesions and/or scars of discoid lupus erythematosus
    d. Senile wrinkling of the skin.

Among the patients whom I have treated with abrasive surgery, 25 were operated on for post-traumatic scars, most of them resulting from automobile accidents where the damage was caused either by broken glass or by forcible contact with metal or plastic parts of the automobile.

EQUIPMENT AND MATERIAL

1. A flexible cable or cord motor capable of revolving at 20,000 or more r.p.m.
2. Abrasive wheels
    a. Stainless steel wire brushes of various sizes
    b. Diamond grit wheels of various sizes and degrees of coarseness
    c. Wheels of Arkansas stone
3. Freon 114 in throw-away cans.
4. Sprayer-syringe to apply Freon 114 (dichlorotetrafluoroethane) to the skin surface.
5. Plastic bags containing 5 per cent diethylene glycol in water.

PROCEDURES

Without preoperative medication, with the exception of first cleansing the area with pHisoHex, the skin is prechilled with plastic bags which contain 5 per cent diethylene glycol in aqueous solution and which have been placed in the freezing compartment of a refrigerator until they are frozen into a mushy consistency. These are placed over the operative site for 20 minutes. After the prechilling the operative site is then sprayed with Freon 114 (dichlorotetrafluoroethane) until the skin is frozen to a board-like consistency. Approximately 2 square inches of skin can be frozen at a time. The apparatus used is especially designed for use with throw-away cans of Freon 114.[4] When the skin is frozen it is abraded with appropriate abrasive wheels rotating at 12,000 or more r.p.m. Additional adjacent areas are then frozen and abraded until the entire scarred area has been treated. The abrasion is continued until the scar is planed off to the level of the surrounding skin. The surrounding skin is also abraded in a feathering-off process in order to avoid sharp lines of demarcation. The operation must frequently be repeated once or twice at 4- to 8-week intervals. A longer interval does not necessarily influence the effectiveness of the operation.

Since the freezing of the skin is an effective method of anesthesia there is no accompanying pain with the exception of a burning sensation. This burning feeling is caused by injury to the skin by the abrasive wheels and by the thawing-out process. Within about 20 minutes this sensation wears off, and by the time the patient leaves the office it is completely gone.

POSTOPERATIVE MANAGEMENT

After abrasive surgery the operated site is loosely covered with nonsterile but surgically clean 3 by 3″ gauze pads which are kept in place by Scotch tape. The patient is instructed to remove the dressings when he gets home and to leave them off. If oozing is too profuse and uncomfortable the dressings can be reapplied for about 24 hours. They should, however, be changed every 3 to 4 hours to avoid sticking. On the fourth day the patient is instructed to wash the area with a mild soap and lukewarm water 2 to 3 times daily. The crusts then begin to separate and are usually gone in about 10 to 12 days.

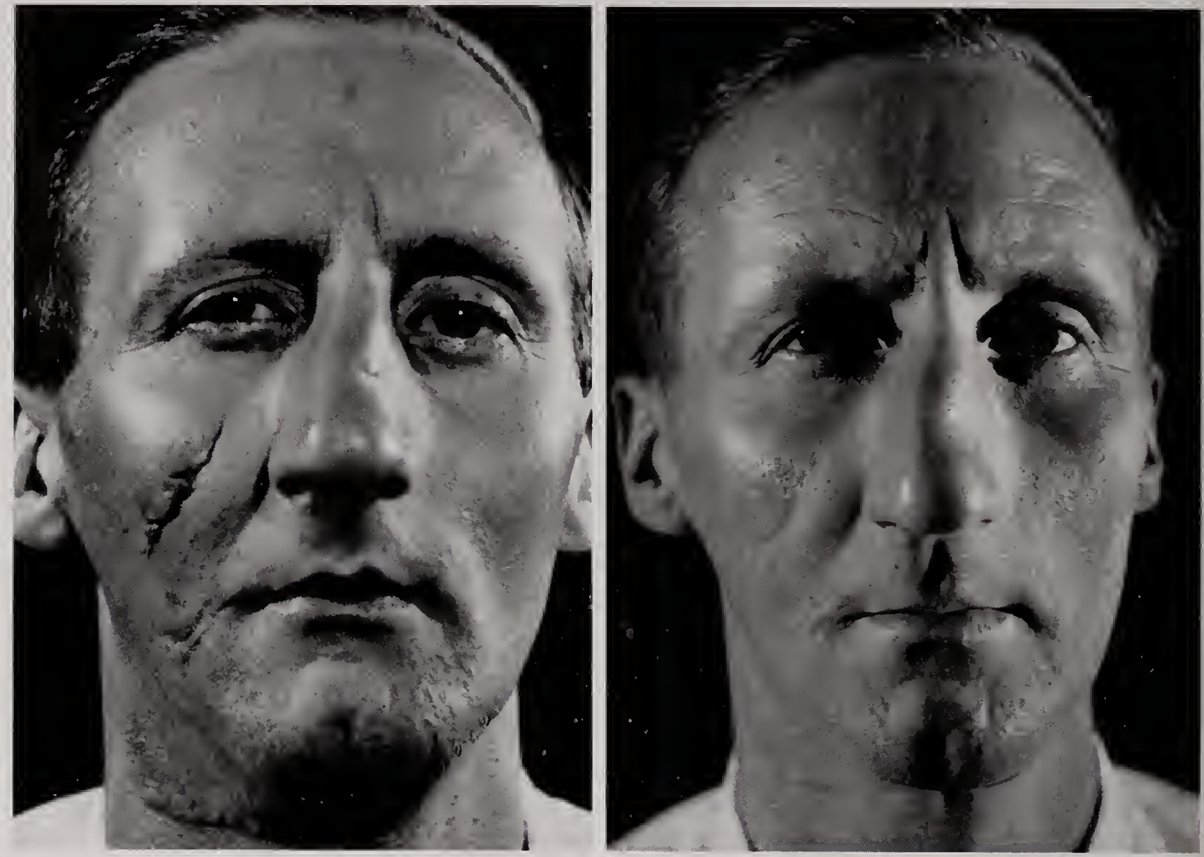

FIG. 1. Results following 3 dermabrasive procedures.

SEQUELAE

As a result of the operation the area becomes edematous. If large portions of the face are involved, there may be considerable swelling. After the crusts have completely separated the abraded areas will be pink and somewhat scaly. This disappears gradually. The new skin may present a somewhat increased or decreased pigmentation than the surrounding skin, but the areas eventually blend imperceptibly. Frequently small milia appear at the operative site. They are easily removed by puncturing them with a needle and expressing the contents with a comedo extractor.

RESULTS

Since the operation is a superficial one it is not expected that the deep portions of the scar can be removed, but the irregularities can be planed off and the area smoothed over. Improvement varies between 65 and 85 per cent in deep scars and better in superficial ones. The deep scarring becomes less noticeable because the contours are flatter. Many scars can be completely eliminated. Figure 1 shows the result in an illustrative case.

SUMMARY

Abrasive surgery is the operation of choice in the repair of scars resulting from windshield cuts and other accidents which result in cut wounds. It is relatively inexpensive and causes a minimal loss of time from work. Because it is so simple it produces less fear and anxiety in the patient.

(Continued on page 386)

President's Page

THE THIRD PARTY IN MEDICINE

The Forand Bill has again focused attention on the Government as a third party in medicine. This proposed amendment to the Social Security Act would provide Government hospital and surgical care for approximately 13,000,000 Social Security claimants, principally persons over 65 years of age. It was first introduced in August of 1957, and as this article goes to press hearings on the Forand Bill are being held before the House Ways and Means Committee. Debate regarding this amendment has grown in frequency and intensity. The bill is vigorously opposed by the American Medical Association as instituting compulsory health insurance for a large segment of our population, bureaucratic control of health care for the aged, and a significant step which will eventually lead to socialized medicine. This bill is a serious threat to all voluntary health insurance, including Blue Cross and Blue Shield, and to the orderly evolution of medical science and practice in the United States. I urge you to read facts about the Forand Bill in the J.A.M.A. of June 7 and Representative Forand's letter to the General Manager of the A.M.A.

Does this mean that a third party in medicine is necessarily undesirable? To begin with, there is a difference of opinion about the meaning of the term. This was quite apparent in the replies our Executive Director received in answer to letters he wrote seeking information for a paper entitled, "The Third Party—Friend or Foe?" Several Washington physicians were not familiar with the term. One defined it as "any individual or organization involved in the care and treatment of a patient. This includes nurses, laboratory, X-ray and physical therapy technicians, the parents of a minor, hospitals, insurance carriers, public health officials, and many others." A Past President of the A.M.A. defines it, "Economically, the third party is anyone or any organization that arranges in any way to pay for professional services rendered a patient by his physician."

A number of our members specifically included Blue Shield along with commercial insurance companies.

While the term may be relatively new, the Commission on Medical Care Plans of the A.M.A. points out that coverage under third party programs began with Student Health Services in 1861 and was followed by Inplant Non-occupational Medical Care Programs in the latter part of the nineteenth century. Workmen's Compensation had its inception in 1911 and Blue Shield was inaugurated in 1940.

However, changes during this period have not been confined to the field of medicine. Around the year 1900, shop girls in Boston earned $5 a week. The average annual earning of all American workers was less than $500 per year and the average work week was 60 hours. About one-fourth of all boys between 10 and 15 years of age were gainfully employed. When these people required hospitalization most of them were taken care of by physicians as ward, staff or charity patients.

Now, the lowest wage for any type of work in Interstate Commerce is $40 per week for 40 hours' work, and many skilled workers average twice this amount. Unemployment Compensation and Social Security are well established. These social and economic changes and the participation of the United States in 2 World Wars have contributed to the tremendous growth of the third party in medicine.

Next month I will comment on some of the implications of the changes in pattern of the practice of medicine.

James W. Watts

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Editorials

THE CANCER MORBIDITY REVIEW COMMITTEE

In any line of endeavor a periodic audit of accomplishments, including a review of failures and successes, is a necessary must if improvement is sought and ultimate perfection is the goal. This is not a new idea; in fact, Hippocrates, one of the better practitioners of all times, endorsed the principle of self-examination some 2,358 years ago. The application of this same principle as a group or committee function has been used by the Medical Society for a great many years. The most notable example of this kind is the Maternal Mortality Committee or Obstetrical Board which reviews maternal deaths in the District of Columbia and has been in operation for the past 18 years.

A new standing committee which will review cancer morbidity in the District of Columbia and which will be known as the Cancer Morbidity Review Committee has come into being. This committee will review cancer cases currently under treatment in the hospitals in the District of Columbia. Since this is a big undertaking, the

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

scope of the study will be limited initially to the consideration of female pelvic cancer only. In the future, it is hoped that a review of cancer in other organ sites will be added.

In a general way, the function of the Committee will be to make a study of the delay period in the diagnosis and the care female patients with pelvic cancer receive in the metropolitan area of the District of Columbia. Actually, the Committee is a fact-finding body with an educational objective. Information concerning cases of pelvic cancer in women will be secured from coöperating local hospitals. At periodic intervals selected cases will be reviewed by the Committee. All physicians who have had a part in the diagnosis, detection, and/or treatment will be invited to participate in the review. At present the Committee is composed of 9 members representing the departments of obstetrics and gynecology of the 3 medical schools and the teaching and non-teaching hospitals in the city. The financial support of the project, including the salary of the trained field worker, has been provided by the District Division of the American Cancer Society. To date 7 hospitals in the District of Columbia have agreed to participate in this fact-finding project. Chronologic summaries of a number of cases have been completed, and the date of the first meeting of the Committee has been set.

For those members who are skeptical of the merits of this undertaking the Chairman offers this advice: Refresh your minds with the teaching of St. Luke who suggested getting rid of the beam in thine own eye, the better to see clearly the mote in thy brother's eye.

J. KEITH CROMER, M.D.

COUNSELING AND PSYCHOTHERAPY BY NON-MEDICAL PERSONNEL

In recent years we have witnessed an increasing activity in the psychologic aspects of medical practice by those who are not physicians. The Washington Metropolitan Area has served as a fairly fertile field for those who have sought to engage thus in counseling and psychotherapy. There are many factors which enter into this. Area physicians are urged to be on their guard to avoid any direct or inadvertent encouragement to a practice which is a threat to the public as well as a danger to medicine and psychiatry.

A smattering of knowledge is always dangerous. In no area, perhaps, is this so easy to gain as in medical psychology. Varying degrees of familiarity can readily be acquired by the non-medical novice or professional from the literature and even in the technics of psychotherapy. A considerable degree of verbal and superficial facility may be acquired, without the necessary background of medicine and without the minimal five years of residency training and experience required of candidates for certification in psychiatry by the American Board of Psychiatry and Neurology. This kind of background must be regarded as a minimum for a solid basis in the fundamentals of modern psychiatry and in preparation for practice.

Economic factors also play an important role. The income potential from the private practice of psychologic counseling and psychotherapy is considerably higher than from most salaried positions as a psychologist or social worker. Occasionally this proves an irresistible lure.

From the psychiatrist's point of view, however, the real threat is not a personal loss of income or patients. It is the presence of inadequately trained individuals entering a medical field without medical supervision. There are 418 psychiatrists in the Washington area. Few of those in private practice have many vacancies in their treatment schedules. Sometimes a patient or his physician may even have to call half a dozen or so to locate a psychiatrist of his choosing who has time available. By the same token, this situation has sometimes been cited as a justification for non-medical referral. However, such reasoning is, to say the least, fallacious. Would one a few years back have recommended an inadequately tested drug when penicillin was difficult to obtain, or have suggested that a patient consult a naturopath because the medical doctors were busy? I have yet to learn of a patient who was well motivated for therapy being unable to locate a psychiatrist.

The physician faces difficult problems in making psychiatric referrals. The psychiatrist is perhaps the first to recognize this. Indeed, the problems involved in making skillful referrals are among the most challenging and complex duties of the physician. It is hardly surprising that a few would not invest the necessary labor to perfect the requisite skills, or might remain unaware of the psychiatric needs of their patients. At times we have a patient doing well in psychotherapy who expresses deep resentment concerning the failure on the part of his family doctor, obstetrician or surgeon to have made referral, earlier referral, or even have earlier discouraged his own idea of seeking psychiatric help. The doctors concerned usually never learn about this. However, many physicians commendably manage to acquire over the course of time, and with some effort, considerable adeptness in managing the complexities and subtleties involved in psychiatric referral. This part of their obligation to their patients is met in admirable fashion. They have become keenly aware of the potential advantages to their patients, the selectivity required, and the pitfalls to be avoided.

Non-medical personnel who would invade the practice of medicine by attempting psychotherapy have been challenged at times. Prominent in their claims that they are not practicing medicine are: (1) There is no physical examination or treatment involved; the patient is not even touched; and (2) drugs or medicines are not prescribed. Needless to say, if we accepted these criteria in delimiting the practice of medicine, history-taking, many features of diagnosis and study, advising, counseling and psychotherapy would not constitute the practice of medicine. With these criteria nearly anyone might legitimately undertake such activities as psychologic case study, psychotherapy, marriage counseling, and family or vocational guidance. These are medical responsibilities. They should remain so. They should not be assumed by, nor be handed over to others. When professionals in adjunctive roles to medicine and to psychiatry are to assist in these functions, they should do so only under supervision, and adequate supervision, by physicians only.

Attempted psychotherapeutic intervention by non-medical amateurs or professionals may at times be helpful. Often it is likely, however, to be unskilled, inept, and deleterious to the patient. Medicine and its specialty of psychiatry are far too likely to unfairly bear the onus of the latter even though they do not even sanction, let alone supervise, such activities. A large segment of the public makes little or no distinction, for example, between a psychologist and a psychiatrist. A great deal of public education is needed, in which the physician can assist.

One method advocated by some to help in this growing problem has been to advocate state laws setting up procedures and standards for the certification of psychologists. This has helped very little. To some extent it has even proved to be a boomerang. In too many instances certification as to professional standards mistakenly has been interpreted as meaning licensure—the license to practice 'psychology,' privately and independently, usually with no, or at best, only token medical or psychiatric supervision. Almost inevitably this means the practice of psychotherapy—an invasion of medical practice.

The American Psychiatric Association earlier this year reaffirmed its prior stand on the relations of psychology and psychiatry. The following two paragraphs are quoted from a resolution approved jointly by the Board of Trustees of the American Medical Association, the

Council of the American Psychiatric Association, and the Executive Council of the American Psychoanalytic Association:

"Other professional groups such as psychologists, teachers, ministers, lawyers, social workers, and vocational counselors, of course, use psychological understanding in carrying out their professional functions. Members of these professional groups are not thereby practicing medicine. The application of psychological methods to the treatment of illness is a medical function. Any physician may utilize the skills of others in his professional work, but he remains responsible, legally and morally, for the diagnosis and for the treatment of his patient.

"The medical profession fully endorses the appropriate utilization of the skills of psychologists, social workers, and other professional personnel in contributing roles in settings directly supervised by physicians. It further recognizes that these professions are entirely independent and autonomous when medical questions are not involved; but when members of these professions contribute to the diagnosis and treatment of illness, their professional contributions must be coördinated under medical responsibility."

The problems involved in non-medical people assuming roles in counseling and psychotherapy came under discussion at the recent (May 28) meeting of the Medical Council of the Washington Metropolitan Area, representing nearly 3,000 area physicians. Those attending were in general agreement in expressing their concern. This problem is seen as a serious danger to the public.

Washington area physicians are urged to assist personally in confining activities in counseling and psychotherapy within the profession of medicine. We must in no way tacitly sanction or inadvertently contribute to an increasing problem.

HENRY P. LAUGHLIN, M.D.

ACCENTUATING THE POSITIVE

There was a time in the history of medicine when a physician needed no public relations. His standing with his own patients and the laity in general was above reproach. He was respected and admired. Somewhere along the way in the past 25 years organized medicine has somewhat lost its position as the seemingly infallible profession. Today, medicine is on the defensive.

The popular magazines, the daily press, and even the professional journals, more often than not, feature articles extremely critical of our profession. In some reports the high cost of medical care is discussed and often blamed on doctors' fees, which in reality have risen but very little in comparison with other commodities and services. Seldom in these writings are the factors of increased hospitalization and drug expenses considered. Stories on fee-splitting, overcharges, and unethical procedures, even though practiced by a small minority, are magnified in the eyes of the public. Even in humor, as propounded in the various media of communication, the doctor is usually portrayed as wealthy and avaricious. His enthusiasm for golf is stressed rather than his ability as a practitioner of the healing arts.

The American Medical Association, along with the local medical societies, is frequently accused by its critics of not being attuned to these turbulent times. These same critics also believe the AMA to be old, conservative, and unbending in its philosophy. Lately, the public has developed a greater understanding and respect for the various lay foundations, such as the American Heart Association, than it has for recognized medical leadership.

This does not imply that these criticisms are true nor that those voicing such opinions are in the majority. It may be said, however, that they are vociferous.

To combat this situation, I propose the following plans of action:

1. That we all attempt to abide by the Code of Ethics of the AMA, and that a more stringent set of regulations be enacted to control and censure, vigorously, those few who do not conform.
2. That we invite the public, whenever possible and with proper control, to participate in discussions, forums and on good-will committees.
3. That we go on the offensive. Not only must we do this with the aid of professionals, but each of us must become a press agent. It is time that we begin to publicize the good that medicine is doing. The long hours of work by the individual physician, the many years spent in preparation for practice, the amount of charity he gives in proportion to the rest of the population, the many indigent patients for whom he provides medical care should be brought to light. Let us, likewise, emphasize the leadership that our societies have given in the field of preventive medicine, in improving medical education, in promoting the ethics of the profession, in providing emergency telephone service, in instituting and backing prepaid hospitalization and medical cost insurance for the middle- and low-income groups, and in proposing many acts of legislation, both on the local and national level, for the benefit of the public.
4. That every one of us make a study of the pressures and trends of the present-day economic, political and social factors. Furthermore, it is imperative that each member take a more active rather than a passive role in the activities of our own Society. I respectfully recommend that he become better acquainted with the thinking and philosophy of the many excellent men who give so much of their time and effort to the Society, and to learn about some of the aims and purposes of the various committees and sections, which are the backbone of any organization.

With greater effort on our part toward these objectives, we should be able to speak with increased confidence to all who will listen. Then, the voice of the doctor shall be heard throughout the land.

Irving Burka, M.D.

ANNUAL REPORT OF PRESIDENT OF MEDICAL SERVICE*

This is the Tenth Annual Meeting of Participating Physicians of the Blue Shield Plan of this area. The accumulation of everything to this point is the proper measure of a report by the President. Ten years ago economic pressures forced the beginning of this Plan. Its objectives were dual, involving both service to the public and support of free medicine. Success followed because the two were kept in balance, as well as because this was the operation of voluntary private enterprise at its best. It is a tribute to the wise and dedicated men of the Board that these objectives have been so persistently and effectively pursued. I cannot praise them too much.

Today we have more than 650,000 subscribers and the highest percentage of coverage of any Blue Shield Plan, as Mr. McGovern has just told you. Nearly 2,100 doctors have received more than 34 million dollars for their professional services during this decade. But the true picture is of service, and it is one of the biggest success stories in our community since the War. Health care is a big item which becomes more important with the complexities of a scientific civilization. Today it can be provided only by voluntary prepayment methods if compulsory intervention is to be avoided.

A review of the past year should contain reference to the following developments:

1. In joining the National Accounts Agreement we have shown the willingness and ability to participate

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* This is a summary of the President's Report presented at the Tenth Annual Meeting of Participating Physicians of Medical Service of the District of Columbia, April 9, 1958.

with other Blue Shield Plans to make possible a uniform scope of benefits nationally, at local rates. This required a mail vote on a number of fee schedule items which resulted in a dramatic evidence of confidence by our Participating Physicians, 1,022 voting for the proposal as presented with only 2 voting "No." Only 7 per cent of replies requested a special meeting.

2. The Board authorized the continued offering of the old Surgical Program as well as the broader Surgical-Medical contract. The Physician Relations Committee has prepared a benefit identification card to help keep the differences clear.

3. The Board authorized the removal of the $10.00 deductible charge on the groupings of laboratory procedures in the interest of better professional and public relations.

4. The period of approved coverage of X-rays before actual hospitalization for an approved condition was extended to 21 days.

5. The Executive Board of the Medical Society of the District of Columbia has made some recommendations which are being carefully studied by our Board. Reports of our progress will be made in the near future to the Society in the matter of expanding our program to meet the needs of labor unions as well as in regard to certain modifications recommended in the operation of our claims and payment procedures.

6. Certain reorganization steps are being studied in our own Board in response to the needs of this very large and complicated and rapidly growing organization. We hope that Participating Physicians can be informed of worthwhile progress in this direction in the near future.

This report would be incomplete without reference to the underlying meaning of this undertaking, i.e., the philosophy of Blue Shield.

Health insurance as we know it today has been dramatically demonstrated to be the best voluntary answer to the threat of compulsory methods of purveying health to the American people. Indeed, it is more firmly established than ever as the only alternative to very substantial controls of governmental origin. The Blue Cross and Blue Shield Plans of America have been largely responsible for originating and guiding the early direction of these voluntary health programs.

It is important that Medical Service is controlled locally through its Board of Trustees, which is composed of outstanding, public-spirited citizens including physicians, who serve without pay. These men are responsible for the concept of "service," which is the most important special characteristic of Blue Shield. Under this principle many of the services are provided under the terms of the controlling contracts as "services" rather than as dollars presented to patients to help them buy the services themselves. Thus a fee schedule or a prior knowledge of costs has been a necessity to permit subscription rates to be as low as possible without endangering the economy of the Plan. The need to know in advance what costs will be with fair accuracy is the biggest question now confronting the growth of Major Medical insurance in the hands of Blue Cross and Blue Shield or under any commercial carrier. All groups have proper concern for the coöperation of medicine on this point.

The pressures which forced the initiation of health insurance despite conflict with insurance principles have shifted but are greater than ever in demanding a prepayment, share-the-risk system. Our credit economy is now so broad and so firmly entrenched that we cannot expect in the foreseeable future that the average family will be able to pay even ordinary medical expenses out of current income.

Since the demand is always for more and more coverage for more and more people, the basic problem continues to be economic. With the phenomenal growth of health insurance the interest of Government, local and national, has intensified rather than lessened. The need is greater to make the voluntary approach work lest it be supplanted. Clear logic now supports the thesis that the "service" approach must retain a large degree of success in order that indemnity programs may have a safe stability. I have accumulated some fervent convictions in my years of participation in this movement.

First, I believe that the whole structure of voluntary health insurance is dependent upon Blue Shield. By that I mean that Blue Cross will not survive without Blue Shield, nor will the commercial health insurance industry, especially the major medical part of it. Only a compulsory, regimented system can supplant this whole voluntary system and the keynote to its survival is the Blue Shield idea as we represent it here today.

Secondly, I believe that free medicine can survive only with Blue Shield. They are not identical entities, but they are so mutually interdependent that neither one will go very much farther without the active support of the other. Their parallel courses must be as mutually supportive as the uplifting pillars of a great temple.

Thirdly, I believe that Blue Shield must be the means to provide service to the public at a community rate and at the lowest rate that is fair to the profession. We have Blue Shield standing in the middle on this issue. The public would like to get the most care it can for the lowest rate, but there is a point beyond which they cannot go. The forces of economic necessity will determine that point, ultimately, but we with statesmanship and intelligence can make a good choice of the exact line where that must be. We should not abuse the profession with these rates, but neither should we permit the public to be abused. That is the very clear choice that we will have to make.

And finally, I believe that the medical profession must build into Blue Shield the controls to share equality of opportunity for doctor and patient alike and to prevent exploitation and inflation.

Free medicine must build this kind of Blue Shield and support it strongly enough as its own to make it work and must do this as the cheapest price of its own survival in the form we would have it survive.

DONALD STUBBS, M.D., *President*

MR. McGOVERN ADMINISTRATIVE HEAD OF MEDICAL SERVICE

Mr. George B. McGovern was appointed to the newly created office of Executive Vice President of Medical Service of the District of Columbia at a meeting of its Board of Trustees at the Washington Hotel, June 10. In his new position, Mr. McGovern will take over the duties of the Secretary and will be responsible to the Board for the administration of MSDC. He will serve as an ex officio member of the Board of Trustees without a vote.

Mr. Theodore Wiprud, who has served as Secretary of Medical Service since its inception in 1946, submitted his resignation at this meeting because of the expansion of Medical Society activities in recent years. In a letter to Dr. Donald Stubbs, President of Medical Service, he stated:

"In addition, I feel that Medical Service, because of its phenomenal growth, should have more than a nominal Secretary. Whatever prestige the Service has gained from a Medical Society official's holding the office, it is now no longer essential. In my opinion, the Service needs someone who can assume the burden of the Secretary's office now carried by the Assistant Secretary."

The Board accepted Mr. Wiprud's resignation with the provision that he continue as ex officio member of the Board without a vote.

Mr. McGovern is a native of California, now residing with his wife and four children in Falls Church, Virginia.

After graduating from Fairfax High School in Los Angeles he attended Los Angeles City College.

GEORGE B. McGOVERN
Executive Vice President of Medical Service

During the War, Mr. McGovern was supervisor of a statistical unit for the War Department. In 1943 he became associated with Group Hospitalization, Inc., where he was employed in the Contract, Information and Correspondence Departments. Shortly after his employment he became Claims Manager and was later appointed Office Manager, in which capacity he served until he was appointed Manager of Medical Service in 1950.

Mr. McGovern has participated in the national Blue Shield movement through his participation on numerous discussion panels, and as a speaker at various Office Management, Medical Claims, and Physician Relations Conferences. He has served as Chairman of the Office Practice Committee for the National Association of Blue Shield Plans, Chairman of the national Blue Shield committee for the development of the Medicare Program, and more recently as a member of the national Blue Shield Committee to study standards for desirable coverage.

In recommending him for the position, President Stubbs expressed his high regard for Mr. McGovern in the following words: "Medical Service and the medical profession are indeed fortunate to have at this time a man of the dedication and ability of George McGovern to assume this important role. The growth and complexity of this plan have now reached the point where such a new position at Board level must be filled, both in the local and the national interest. George is the type of leader in Blue Shield who will prove to be the man for the need."

MR. RAWLINGS SUCCEEDS TO PRESIDENCY OF GROUP HOSPITALIZATION

Mr. F. P. Rawlings, Jr., who has been associated with Group Hospitalization, Inc. since 1935 and who has served as its Director since 1948, was elected by the Board of Trustees to succeed the Honorable Joseph H. Himes, founder and President of GHI since the Plan began operations in 1934. Mr. Himes resigned for reasons of health immediately following his reëlection as President for the 25th consecutive year at the annual meeting of the Board of Trustees, May 23. He was elected Chairman of the Board.

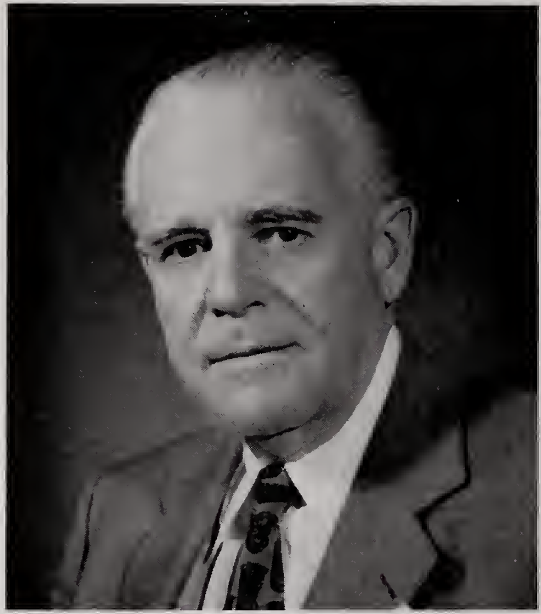
Two members of the Board of Trustees were reappointed for 5-year terms: Mr. Himes, by the District of Columbia Commissioners, and Mr. H. L. Rust, Jr., President of the H. L. Rust Company, by the Participating Hospitals. Dr. Ralph D. Whitley was appointed to the Board by the Medical Society of the District of Columbia, succeeding Dr. Paul Kiernan. Mr. Rawlings was appointed to the Board to succeed General Frank T. Hines, resigned, appointee of the D. C. Commissioners.

In addition to the above, members of the Board of Trustees are: Mr. Bruce Baird, President, National Savings and Trust Company; Mr. Charles D. Drayton, attorney; Mr. Frank R. Jelleff, Chairman of the Board of Frank R. Jelleff, Inc.; Mr. Howard W. Kacy, President, Acacia Mutual Life Insurance Company; Mr. James H. Lemon, partner of Johnston, Lemon and Company; Dr. A. Magruder MacDonald, Coroner of the District of Columbia; Mr. Alfred G. Neal, Chairman of the Board, Potomac Electric Power Company; Dr. Howard P. Parker; Mr. Walter N. Tobriner, attorney; and Dr. Richard H. Todd.

F. P. RAWLINGS, JR.
New President of Group Hospitalization

The Trustees reëlected the following officers: Mr. Neal, First Vice President; Mr. Drayton, Second Vice President; Mr. Lemon, Secretary; Mr. Baird, Treasurer; and Messrs. Douglas Smith, Nelson Foster and C. Bayne Marbury, Assistant Treasurers.

Mr. Rawlings, a native of Rocky Mount, N. C., has been associated with Group Hospitalization from its early days. He has served successively as Office Manager, Business Manager, General Manager and Director of the Plan.



JOSEPH H. HIMES
Founder and Retiring President of GHI

As a founder of Group Hospitalization, Inc., Mr. Himes became a pioneer in the national movement for voluntary prepayment of the cost of hospital care which was beginning to gain impetus in the early 1930's. At the time Group Hospitalization began operations in 1934, only 3 other prepayment plans were in operation. Today there are 85.

When Mr. Himes issued the call for a public meeting that was held, March 10, 1933, he was serving as President of Columbia Hospital. In that capacity, he had an intimate knowledge of the economic difficulties which then beset the hospitals and the public, particularly persons of moderate income, many of whom found it impossible to pay for needed hospital care.

Attending the meeting that led to the establishment of Group Hospitalization were the Surgeon Generals of the United States Public Health Service, the Army and Navy, leaders in the medical profession, representatives of the medical schools, the Administrator of Veterans' Affairs, the Director of the Community Chest, the officers and trustees of the hospitals of the city, and representatives of business and commercial interests.

An editorial in *The Evening Star,* May 27, described Mr. Himes' administration of GHI as "a quarter century of extraordinary community service devoted to lightening the burdens of persons confronted with the necessity of being hospitalized." Responsible for a system "now benefiting more than three-fourths of a million residents of the Washington area, Mr. Himes leaves with the satisfaction of having earned the gratitude of the whole community."

CORRESPONDENCE

WASHINGTON, D. C., May 23, 1958

TO MR. WIPRUD:

Probably inspired by your editorial on the subject in the current MEDICAL ANNALS, we are getting more than the usual number of queries on the problem of whether to rent or to buy an automobile for professional use.

While there are certain advantages for either method, your article seems to favor the rental plan, and it furthers one fallacy at least, which is used in the promotion of this method; that is, your statement "in addition, rental is 100 per cent tax-deductible."

Since the rental contract does not stipulate that the car must be used only for professional purposes, which in the eyes of the Internal Revenue Service would be tax-deductible, it is a false assumption that in all cases the rental expense would be so considered by Internal Revenue. In fact, as you know, their position is that in many cases they do not allow the full depreciation of a privately owned car to be deductible, so there is no more reason to believe that they would so consider the rented car.

Furthermore, the studies of Management Consultant firms, on a national basis, show that while the relative expenses of owning or renting on a current basis are about the same, there is one great advantage for the former method; which is, that after four or five years when you rent you have nothing but the expense to show for it, while if you owned you still have the car even though it is then in a fully depreciated state.

Sincerely,
JOHN C. POST
Professional Business Management, Inc.

THE DOCTOR AND HIS LIFE PLANNING

Planning Your Estate*

AMIEL CAPLAN

Estate Planning Consultant, Solomon Huber Associates, New York City

Mr. Caplan

Estate Planning is simply Financial Planning, by the family and for the family. Your estate is actually your family's fortune. Estate Planning means that you, the head of the household, are charged with the responsibility to create this fortune, to manage this fortune, to use it wisely, and to make certain it can be transferred to your family properly.

It is not my intention to point out any tricks or "gimmicks" in estate planning but it is my purpose to so disturb each and every one of you that you will decide that now is the time to concern yourself with the many problems which make up your estate; and that now is the time to make the multiple decisions and preparations necessary to transfer properly your family's fortune from your management, when you die, to theirs, a so-called heartbeat from now.

I shall try to convince those who have not yet had their will drawn to do so. I shall try to persuade those who have wills to review them and make certain they are up-to-date. I shall try to convince those who have not yet organized their estate to do so, and those who do have an estate plan to review it.

Prior to World War I the only advisor a man might consult was his attorney. He came to him for advice in matters of law. Only occasionally was he asked to draw a will. In 1916 the Federal Government, in need of money, enacted the Federal Estate Tax Law. This was to be a temporary measure. It has proved to be permanent, for such a tax has been part of the Federal fiscal program ever since. The maximum rate in 1916 was 10 per cent for the very wealthy; the poor people didn't object. Today the poor people, by virtue of inflation and of our dynamic economy, do object. The comparatively modest estates have become tax-payers. Today the maximum rate has climbed to 77 per cent. Some of you must remember the unfortunate Woodward death and what happened to his fortune. He went to sleep that night worth in excess of $10,000,000, and when he was not alive the next day Uncle Sam said, "My share is $7,500,000, please."

After World War I, with the advent of estate taxes and the income taxes, which also came in about the same time, the accountant joined the team of advisors. It became necessary to keep books so that everybody's partner, Uncle Sam, could determine what share of the profits belonged to him. Today the 2-man team of advisors has been joined by a third consultant, called the estate planner.

The estate planner, whatever his background—law, banking, insurance or accounting—is learned in matters pertaining to estates. He is familiar with the laws which govern the passing of property after death. He is familiar with the ways in which property is acquired and with the many taxes which are levied against property during its acquisition, as well as at death. He is very familiar with the various insurance forms with which a man surrounds himself for the protection of his family. He is skilled, as you are, in breaking down the reserve which we all have and can thus bring forth the many hidden fears and desires which color our thinking. He knows about all of our assets and all of our liabilities.

I should like to discuss now, albeit superficially, some of the problems to be considered when you work with your estate planner.

Loss of Income

First, let us go into the problem of the loss of income, because of a disability. Today you and your family are reasonably secure. You have a certain financial worth; there are assets of many kinds, including stocks, cash and your income. Tomorrow your income stops because you are disabled. If you have planned well, your income during your disability, from insurance or whatever other source, will be sufficient to keep the office running, that is, pay the rent, telephone, nurses' salaries, equipment notes, notes to the bank, car notes, insurance payments, and so forth. In addition would be the money necessary to keep the family running, make the payments on the mortgage, pay the grocer, the butcher, the cleaner, the laundry, taxes, dues, gas and oil, tuition, life insurance premiums. And to add to all of these is the cost of the illness itself.

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* Delivered in Washington, D. C., March 27, 1958, during the Forum on Medical Economics sponsored jointly by the Medical Council of the Washington Metropolitan Area and the Wm. S. Merrell Company of Cincinnati, Ohio.

Your estate planner can help you to organize a well rounded program of disability protection. He will suggest business overhead insurance to cover the cost of running your office. The premiums for such insurance are modest and could be tax-deductible as a business expense.

The nature and type of income replacement coverage could also be discussed with your estate planner. Short- as well as long-term coverage could be provided. It seems reasonable, and I think you will agree, that you will not maintain your present standards of living nor keep your office intact if your disability lasts longer than 1 or perhaps 2 years. Some adjustment in your situation will take place. It is good planning, therefore, to be fully and completely covered for at least 1 year or maybe 2 years, but that if your disability should last and continue beyond that point to be prepared to make some readjustments in your basic needs.

Today there are many plans available to help cover the cost of illnesses, such as Blue Cross, Blue Shield, as well as private insurance companies. Again, your estate planner can survey your family needs and help you to select the best combinations of hospital and medical fee coverage including that called "major medical."

Estate Dollars

The next rampart of defense against an attack upon the security of your family would be the estate dollars you have provided to replace your earning power when you are gone. These are very important dollars. Some understanding of how they will reach your family and some of the pitfalls which lie along the path should prove valuable.

When you die your partner, "Uncle Sam," immediately appears and asks, "How much was he worth?" And your executor must answer him truthfully, not according to the statement you prepare for the bank when you want credit but according to a detailed report entitled United States Estate Tax Return (Form 706). This report is about 40 pages long.

Your executor must provide complete information about such assets as cash on hand and in banks, bonds, stocks, debentures and warrants, about home and summer cottage, furniture in your home and in your cottage, automobiles and boats, art and coin collections, personal clothing and jewelry, office equipment and accounts receivable, books and instruments, loans, life insurance, powers of appointment, and so forth. You own it. You share it. You can appoint it at your death. Uncle Sam wants to know about it and what it is worth.

Add it up. Quite a tidy sum, isn't it? More than you thought. You have created it. You have managed it. You have used it. But are these dollars truly yours? Can you go out and just "blow them in"? Use them to retire with tomorrow? No! Why? Because they don't belong to you. They belong to your family. You are just the custodian in charge of a trust. This is your family's money—your family's fortune.

It is your wife who does most of the spending. It is your children who make the greatest demands. It may be your parents who look to you for financial help. It is the community around you which pleads for charity. There is very little left over that you can truly call your own.

Actually you are in charge of a most vital business. You are the president, the salesman, the production manager, the treasurer. Your business is named "Our Family Fortune" or perhaps simply "My Estate." It can be Big Business worth many hundreds of thousands of dollars or it can be more modest. But whatever its size, it is Big Business to you and your family. You must keep this business in good order and in a position to be passed on to your family with the least possible trouble or cost.

Well, how does one transfer property from himself to his family?

The answer is by gifts. You can either give it to them while you are alive or you can give it to them after your death.

Either way, there are rules and regulations which stipulate the manner and method of such giving. These are the laws which control the passing of property from one person to another and the taxes which the Government imposes upon the right to make such transfers. These taxes are called gift taxes if the property is given away while you are living and estate taxes if the property is given away at your death.

YOUR WILL

Your will is one way of making such gifts at your death. One of its principal purposes is to state to whom you wish to make such gifts and in what amounts. However, I believe that a will is a most misunderstood document. It is commonly believed that when one has drawn his will he has put his affairs in order and set up the method and the manner with which his property will pass on to his family. This may be so, but not always.

For example: Your home, if it is jointly owned, will pass to your wife, outside of your will. So will your bank accounts and stock accounts, if they are owned jointly with your wife or someone else. Your bonds may be jointly owned, or may have beneficiary designations, and so will pass outside of your will. To drive this thought home: Is yours an empty will? Does it pass nonexistent property or control nothing of value?

However, even if all your property is arranged to be passed on to your family outside of your will, it is still necessary and important to have your will drawn and kept up to date. Through you, it appoints the executor, it may nominate or suggest the guardians for any minor children, state upon whom the burden of any taxation will fall, and so forth.

Now remember, for a will to function it must be offered to the court. That means it must be found. Don't hide it where only you know where it is. It can be lost forever. For a will to function it must be accepted by the court. That means it must be properly drawn and witnessed, according to the laws of the state in which it will be offered for probate. A will properly drawn in the state in which you lived 10 years ago may not be acceptable in the state in which you now reside.

Since your will nominates your executor, I offer a word of caution. This is not a simple assignment and should not be decided upon with emotion. I know a man usually nominates his wife as executrix. But let's face it. She can't do this job alone. Very rarely is she experienced in money management. Besides, she has the burden of running the household and raising the children without your help. She is upset and emotionally drained. Now you make her your executrix and give her the additional burden of dealing with the tax collector, the bank, settling leases and contracts, collecting money due the estate and settling claims against the estate, and all the other duties. All way beyond her.

So she must seek advice and help. From whom? That is the $64,000 question. It is my recommendation and suggestion that you and your estate planner select now the most competent person or bank you can find and nominate the person or bank as co-executor with your wife.

After the clause which nominates your executrix is usually found the direction to your executor to pay all your debts and final expenses and any tax levies against your estate before giving your property to your family. This is fine, but if yours is an "empty will," with what? Make certain that there will be enough cash or other easily liquidated property to more than take care of any projected needs passing through your will. A good "rule of thumb" is to estimate that your executor will need anywhere from 10 to 20 per cent of your gross estate in cash, if your estate is under $300,000, and an even higher percentage if your estate is over this amount. Only an individual analysis by your estate planner can pinpoint this need more definitely.

ESTATE TAXES

A few words about estate taxes.

The Federal Estate Tax, if any, must be paid within 15 months of the date of death. Otherwise there is a penalty of 6 per cent interest charged against the estate from the date of death.

Everybody asks, "How much will my estate be taxed? I am worth so much." Well, let's see what your estate tax liability might be. If your net estate (after expenses) does not come to $60,000 there will be no taxes. In fact, if you are married at the time you die and you have left your property to your wife under certain conditions so as to qualify the property for the Marital Deduction, your estate, after expenses, could be worth up to $120,000 without your being concerned with Federal Estate Taxes. A word of warning. The use of the Marital Deduction benefit to obtain a tax postponement, at your death, could prove harmful if the surviving spouse has substantial property in his or her own name. Again, only individual analysis by your estate planner can tell.

In this same area, the pyramiding of property into the estate of a survivor can result in a serious sacrifice of capital. If the survivor has adequate resources of his or her own, it might be wise to bypass the survivor. The use of trusts and the skipping of generations could serve to reduce the full impact of Federal Estate Taxes.

Next can be found a clause on specific bequests. It is here that you demonstrate your love and your inner feelings: $1,000 to my friend Joe Smith (he is my bosom pal); $5,000 to my family servant, Mary Jones; $100 a month to my Mother and Father for as long as they may live; $10,000 to each of my children for their education. You have written it and your executor must see that your wishes are carried out even if it be to the detriment of your wife and children. Such gifts may have been perfectly okay when they were written but time and circumstance may change things. Assets change and shrink. Family needs may increase. Constantly review such bequests and keep them in line with current conditions.

Then comes that part which leaves all the rest, residue and remainder, of whatsoever kind and nature to my beloved wife, if living; if not, to my children, per stirpes. This is the usual wording which is designed to take care of your wife, your children, and your grandchildren, all at one fell swoop. Be careful. Perhaps your family needs should not be so simply stated.

Your wife may not need the money. If that is the situation, then it would not be wise to pour your assets on top of hers. However, if she should need the money, shall it be left to her in the form of income or in cash for her to invest and manage? It's astonishing, when you add up your estate assets, to discover that your wife will have anywhere from $50,000 to more than $100,000 in cash to play with. It's disturbing when you realize that she never had more than $200 a week in her life. In fact, most of you here never had that much cash in your bank account either. What is it to be, income or cash? This should be decided now, while both of you are here to talk about it, not when she might be alone and may have to depend upon self-serving strangers for guidance.

The magazines have been filled with advertisements showing the average American family secured by wise investments. But is this a true picture? It has been my experience that most families do not match this picture of the average American family: a loving husband, a pretty wife, 2 or 3 happy children. I find families in which parents are more or less dependent. I find brothers and sisters who have become charges of their brothers and sisters. I find children who are incompetent and who will become charges of their brothers and sisters. I find widowed sisters and the problem of their orphaned children in the event they too should die.

It soon becomes evident that estate planning and the allocating of the "family fortune" to best meet and satisfy this many faceted problem called "my dependents" can become very complicated and most touchy. For example: "My mother is living with me. Am I to assume that my wife, in her widowhood, will provide a home for my mother? What if my wife remarries?"

Do you have a male child? Beware of a commonly used phrase, "per stirpes." It is found very often in wills and life insurance policies. It means that whatever my child would have inherited, if he had survived me, is to be shared by his children, if they survive me. But consider this. There is a disaster. Your son and his children perish. Your son's wife survives. Since neither your son nor his children survived you, your daughter-in-law is disinherited. If you love your son's wife, the mother of your grandchildren, beware of the "per stirpes" phrase.

Have you adopted a child? Make certain that the language of your will and life insurance does not disinherit such a child. How old is your will? Have any children been born since it was written? If so, make certain they are included. Have you been married more than once? Take another look at your will and life insurance. Have you moved from the state in which your will was drawn? Make sure that it is properly drafted for the state in which you now reside.

When a man dies, one of the first questions asked by his friends and relatives is, "How much life insurance did he carry?" Why? Because there is probably no single piece of property, in the average man's estate, more important than his life insurance portfolio. There is nothing more adaptable in design, more stable in structure, more certain in distribution.

(*Continued on page 386*)

On the Lighter Side

EDITOR'S NOTE: Dr. Kadan graciously relinquished his page this month for the publishing of the following verses by Dr. Walter A. Wells, one of the recipients of the gold-headed canes awarded to distinguished members of the staff at the Annual Staff Dinner of the Washington Hospital Center, June 2.

SOME THOUGHTS ON RECEIPT OF GOLD-HEADED CANE

I feel high honored to obtain
The Doctors' famed gold-headed cane.

Before I walk out and try it
I have some thoughts prompted by it.

Such as I have I'll try to tell
In verse, or rather doggerel.

As Doctors in their years advance
They are inclined to backward glance;

And things remembered from the past
With events present to contrast.

During this time I can recall
Seeing pet systems rise and fall.

Indeed the like has ever been
Since art of healing did begin.

Old medical tomes are replete
With methods which are now effete.

As fashions change in man's dress
They change in medicine no less.

Cures for a season all the rage
Are quite forgotten the next age.

Courses faithfully followed long
In course of time are found all wrong,

And doctors have obtained high fees
For practicing stark fallacies.

Oddly enough when change takes place
What comes about is "about face."

A well known case to specify
Is question of the blood supply.

For the same ills for which we bled
At present we give blood instead.

Many methods once labeled "tops"
Have by experience proven flops.

Th' electric current instead of pills
Was one time current for all ills;

But after a while the battery
Made way for X-ray therapy.

Next came along great hue and cry
All about the toxic foci.

Lungs, liver, stomach, kidney, spleen,
Teeth, tonsils, bladder, intestine,

GOLD-HEADED CANES FOR STAFF MEMBERS OF THE HOSPITAL CENTER

Left to right: DRS. W. CABELL MOORE, HERBERT SCHOENFELD, WALTER A. WELLS, AND THOMAS BRADLEY, distinguished members of the staff of the Washington Hospital Center, were awarded gold-headed canes at the first Staff Dinner, June 2, held at the Hotel Statler.

Without regard to condition
Were held guilty on suspicion.

(Teeth and tonsils gave chief offense
'Twas slaughter of the innocents!)

Hormones and sera had their day
And fake vaccines came into play;

For were we not once assured
Colds by vaccines could be cured?

The antigens had a great run
For everything under the sun.

Then began the vitamin rage
To take the center of the stage.

The notion indeed became widespread
That man in a way was underfed.

How could one be very merry
In constant dread of beriberi?

So mankind with alacrity
Went on a wild vitamin spree.

Then came along sulfonamides
Guaranteed bactericides;

And wonderful it was the way
The staph and strept they did slay.

The bugs were given a buggy-ride
Till they got mad and turned the tide.

The little cocci rather than yield
Put a cocci army in the field,

Which to resistant strains gave birth
And made the drugs of little worth.

Then to the germs themselves we turned
And useful facts from them learned.

We found that species of one sort
Could another's growth cut short.

We must therefore make it an aim
To outsmart them at their own game.

So of germ stuff we made a mix
To produce antibiotics.

They prove their worth, but even at that
Experience proves we can't stand pat.

For here again, long continuance
Has as result germ resistance.

Penicillin which held high place
Is now sadly fallen from grace.

Medical men somewhat at sea
Then shifted to a new theory,

And everywhere became inclined
To stress the influence of the mind.

So patients now were oft advised
That they be psychoanalyzed.

The riddle of life in sex concealed
Is by symbols in dreams revealed.

Patient's troubles you must show them
For the cure is but to know them.

But analysts notwithstanding
Mental ills go on expanding.

When failure follows all your tries
There's naught to do but tranquilize.

How nice and easy by a pill
To chase away a mental ill;

To make the downcast and the sad
Merry, joyous, gay and glad;

To make the anxious and the worried
Calm and peaceful and unhurried;

Or vice versa animate
The slow and sluggish and sedate.

All this and more they promise you
The wonder-drugs can surely do.

So if complaints you would allay
Give meprobamates—an easy way.

To make your patients all serene
Prescribe for them a hydrazine.

For harmony give Harmonyl
And placate with Placidyl.

To help the tense ones to relax
A proper dose of Atarax.

Well, if all things went just as planned
This world would be a happy land.

But don't forget, we used to say
That dancers must the pipers pay;

And that it was a foolish flyer
Who flew from frying-pan to fire.

For by these drugs beyond all doubt
Calamities are brought about.

Too oft a baneful side-effect
Can patient's health completely wreck.

A Parkinson's he may acquire
Or some malady even more dire,

A stomach or liver disease
Which worse becomes and never leaves.

Blood dyscrasia, or toxic state
Is oftener still the victim's fate.

Though pessimistic all this sounds
For such recital there are grounds.

In science as we learned at school
Trial and error are the rule:

And useful truths attained at last
By full knowledge of the past.

Story of medicine for centuries
Is one of fads and fallacies.

But eventually fads fade
And great discoveries are made.

Though oft for spells we go astray
In the long run go the right way.

WALTER A. WELLS, M.D.

Photo by Leslie French, M.D.

DR. MANCHESTER ADDRESSES CARDIOLOGISTS

DR. BENJAMIN MANCHESTER was one of the speakers at the Interim Meeting of the American College of Cardiology in St. Louis, Mo., May 20–24.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, May 26, 1958, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Lawrence R. Cannaday, 3128 Sherman Avenue, N.W.
William F. Colliton, Jr., 21 Black Hawk Drive, S.E.
Joseph Berry Davis, 2310 North George Mason Drive, Arlington 7, Va.
Robert LeRoy Dow, 915 19th Street, N.W.
Stanley Gould, 1458 Columbia Road, N.W.
Vernon E. Martens, National Naval Medical Center, Bethesda, Md.
Harry M. McAllister, 1746 K Street, N.W.
John F. Nancarrow, 4716 Bradley Blvd., Chevy Chase, Md.
Wendell A. Parker, 5208 Augusta Street, Chevy Chase, Md.
Donald P. Roach, 4424 First Place, N.E.

Associate Members

Leonard Apt, 3636 16th Street, N.W.
Charles Ching-Te Chow, 5437 Connecticut Avenue, N.W.
William Cody, St. Elizabeths Hospital
Virgil Jackson Dorset, 4705 Dover Road, Chevy Chase, Md.
James W. Egan, 7720 Wisconsin Avenue, Bethesda, Md.
Albert Modlin, 2201 Hannon Street, Hyattsville, Md.
Irene E. Roeckel, 1507 Foxhall Road, N.W.

Resident-Intern Members

Herbert A. Bloomer, 2005 North Daniel Street, Arlington, Va.
Robert E. Goyne, 3721 13th Street, South Arlington, Va.
Wellington Hung, 1007 L Street, N.W.

The following applicants for membership will be voted on at the meeting of the Executive Board, July 28, 1958.

For Active Membership

Eugene R. Atherton, Harvard University—1950
John J. Canary, Georgetown University—1947

Prokopes Colevas, George Washington University—1954
William B. Glew, George Washington University—1952
James P. Hartley, Duke University—1952
Murdock Head, University of Vermont—1953
George F. Mahoney, University of Colorado—1937
Robert R. Nelson, Howard University—1940
Edward J. Pacious, Georgetown University—1951
Richard G. Wang, University of Pennsylvania—1936

For Associate Membership

Peter H. Bulle, University of Munich (Germany)—1950
Marion D. M. Faris, University of Virginia—1950
Thomas M. Foley, Jr., University of Virginia—1937
Patrick Leary, George Washington University—1953
Herbert L. Ley, Harvard University—1946
A. Herbert Maser, University of Vermont—1952
Robert B. Neu, Georgetown University—1945
Bernard H. Zeavin, University of Manitoba (Canada)—1950

For Resident-Intern Membership

Norman C. Kramer, George Washington University—1954
Robert Kramer, University of Geneva (Switzerland)—1954

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Outline of Orthopaedics, 2nd ed. John Crawford Adams, M.D. (London), F.R.C.S. (England), Consultant Orthopaedic Surgeon, St. Mary's Hospital, London, and St. Vincent's Orthopaedic Hospital, Pinner; Assistant Editor, *Journal of Bone and Joint Surgery*. Price, $8.00. Pp. 428. Edinburgh and London: Livingstone, 1958; Baltimore: Williams & Wilkins, exclusive U. S. Agents.

Handbook of Treatment of Acute Poisoning, 2nd ed. E. H. Bensley, M.B.E., B.A., M.D., F.A.C.P., Director, Department of Metabolism and Toxicology, The Montreal General Hospital; Associate Professor of Medicine and Lecturer in Toxicology, McGill University; and G. E. Joron, B.A., M.D., C.M., F.A.C.P., Assistant Physician, Department of Metabolism and Toxicology and Department of Medicine, The Montreal General Hospital; Demonstrator in Medicine, McGill University; Assistant Physician, St. Mary's Hospital, Montreal. Price, $4.00. Pp. 212. Edinburgh and London: Livingstone, 1958; Baltimore: Williams & Wilkins, exclusive U. S. Agents.

Love, Skill and Mystery—A Handbook to Marriage. Theodor Bovet, M.D. Price, $3.50. Pp. 188. Garden City, N. Y.: Doubleday, 1958.

Clinical Obstetrics and Gynecology. A Quarterly Book Series. Vol. 1, No. 1. Medical Problems in Pregnancy, edited by Curtis J. Lund, M.D. Management of Endocrine Problems, edited by Allan C. Barnes, M.D. Twenty-four contributors. Price, $18.00 subscription for 4 consecutive numbers. Pp. 288. New York: Hoeber-Harper, 1958.

Textbook of Medical Treatment, 7th ed. Edited by M. O. Dunlop, F.R.C.P., London, Professor of Therapeutics and Clinical Medicine, University of Edinburgh. Price, $11.00. Pp. 923. Baltimore: Williams & Wilkins, 1958.

A Primer on Common Functional Disorders—Practical Diagnosis and Management. Jack W. Fleming, M.D., Department of Internal Medicine, The Medical Center Clinic, Pensacola, Florida, with illustrations by Jerry Robinson. Price, $5.00. Pp. 174. Boston: Little, 1958.

Dietary Prevention and Treatment of Heart Disease. John W. Gofman, Ph.D., M.D., Donner Laboratory, University of California, Berkeley; Alex V. Nichols, Ph.D., Donner Laboratory, University of California, Berkeley; and E. Virginia Dobbin, Senior Dietitian, E. V. Cowell Memorial Hospital, University of California, Berkeley. Price, $3.95. Pp. 256. New York: Putnam, 1958.

Diagnostic Medical Parasitology. Edward K. Markell, Ph.D., M.D., Assistant Professor of Infectious Diseases, Division of Parasitology and Tropic Diseases, Department of Infectious Diseases, School of Medicine, University of California, Los Angeles, and Marietta Voge, M.A., Ph.D., Assistant Professor of Infectious Diseases, Division of Parasitology and Tropic Diseases, Department of Infectious Diseases, School of Medicine, University of California, Los Angeles. Price, $7.00. Pp. 276, with 115 figures, including 5 in color. Philadelphia: Saunders, 1958.

Memoirs of a G.P. Otis Marshall, M.D. Price, $3.50. Pp. 155. New York: Vantage Press, 1958.

Clinical Enzymology. Edited by Gustav J. Martin, Sc.D., Research Director, The National Drug Company, Philadelphia. Price, $6.00. Pp. 241. Boston: Little, 1958.

HOW TRUSTEES CAN BEST SERVE "THE FUTURE OF BLUE SHIELD"*

LOUIS H. BAUER, M.D., D.Sc., F.A.C.P.

Chairman, Board of Directors, United Medical Service, Inc.

In surveying the various Blue Shield Plans, we find that the Boards of Trustees vary widely in their makeup, their relationship to the medical profession, and in their attitudes toward basic Blue Shield philosophy. Boards also vary in their administrative functions and methods.

I believe that all this variety tends to weaken Blue Shield and that certain very basic principles should govern all Boards of Trustees. Boards' adherence to these principles may decide the future of our Plans.

In an article of mine, recently published, entitled "The Future of Blue Shield,"[1] I gave examples of the effects that follow upon a lack of unity in the medical profession. I am sure many of you are personally aware of how government-controlled medicine was swept into countries like England, Sweden, Greece, and Japan. I'm also sure that you are following the events in Belgium, France, India, and Thailand.

You know that wherever the profession has stood together as a unit, it has been able to make a successful stand against complete government encroachment.

Today, in the United States, since most patients use insurance as a means of paying for their medical care, the profession has an excellent opportunity to make a firm, united stand against our Government's further intervention in medical care. All that the doctors need do is to join behind one single plan that they themselves sponsor and control. (Whether or not the physician approves of insurance is beside the point.) Insurance is here to stay, whether or not we like it. There is absolutely no turning back to the system in vogue that we knew 25 or more years ago.

Board's Relationship to Profession

To begin with, the Board itself must be under the direct control of the medical societies, either by virtue of a majority representation of physicians on the Board or by whatever other effective means of control the societies devise.

It may well be that the societies feel better represented by certain knowledgeable, competent laymen. If so, all well and good. The point is: The medical societies should have the ultimate power. We cannot expect the societies or their physician-members to continue supporting the Plans unless this power is given them. The reasons for this are self-evident: We are offering our members physician-services. We ask physicians to agree to specific fee schedules and, in the Service Benefits Plans, we ask the physician to accept our payment as full reimbursement when he treats patients in certain income brackets. The doctor cannot be expected to agree to these provisions unless he has a controlling voice in establishing them.

As to non-medical members of the Board, it should be remembered that physicians taken as a whole are poor businessmen and poor financiers. They need the advice of those who are experienced in these fields. Therefore, there is a need on Blue Shield Boards for business executives, financiers, public relations directors, and actuaries.

How far the additional general public or labor should be represented is a controversial question. This is something each Plan must decide for itself, keeping the following in mind: Other plans, such as commercial plans, also sell medical care insurance. Labor unions, too, set up health plans, but the medical profession plays no part, nor does it pressure to play a part, on the governing boards of these organizations. However, just as these organizations should consult medicine, so should medicine consult the general public and labor. Board membership, on the other hand, is a moot point.

I have discussed the composition of the Board, and I should next like to speak of the specific things a Board may do to improve its relations with the medical societies.

Thus far, only Blue Shield has offered the doctors the control they desire and need. In some Blue Shield Plans, however, this control has weakened, or has been taken away from the doctor altogether.

It is not uncommon to hear remarks such as the following from doctors:

"Our Society has nothing to say about our local Blue Shield Plan."

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* Delivered, April 29, 1958, in Chicago, Illinois, at the 1958 Annual Conference of Blue Shield Plans.

[1] New York J. Med., 1957, **57**, 3700.

"We are never consulted about policies."

"Dr. A was originally suggested by us for the Board, but he never tells us anything, and he no longer represents us."

Then, on the other side of the picture, we have remarks from the Plan Directors, such as:

"What right did the Medical Society have to do that?"

"What do we want doctors for when we are discussing coverage?"

All this points out the fact that some of our Plans are no longer doctors' Plans except in name. Not all of this is Blue Shield's fault, but often it is the fault of the medical society in letting control of the Plan slip out of its hands. The fact remains, however, that whatever the reason, it is the duty of the Board of Trustees to see to it that this control is strengthened or, where necessary, returned to where it belongs—in the hands of the profession. The key to the correct balance of Blue Shield strength lies in the relationship of the Board to the medical societies it represents.

Most important—Blue Shield must never become a third party! It must only continue as an agent of the medical societies, doing for them what they cannot do for themselves—administrative work, devising contracts, and so on. It is up to the medical members of the Board to see to it that their medical societies are constantly informed of these activities; and these same medical members must bring the voice of the societies to Board meetings.

The medical societies should have the right to nominate the medical members of the Blue Shield Board. Ideally, in small Plans, they can perhaps elect them. But no physician-trustee should be elected unless he has been at least nominated or approved by the medical society of which he is a member.

Plan trustees must see to it that no major change in policy is approved by the Board unless the changes first meet with the approval of the medical societies. This applies to such Plan policies as the extent of coverage offered, service benefit levels, fee schedules, and so forth.

Of course, some recommendations of the medical societies may not be feasible, because of financial or actuarial considerations. It is my opinion, however, that no item in the schedule of allowances should be set merely on the basis of funds available. If a reasonable fee, one acceptable to the physicians, is not possible, then either that allowance should be made possible, financially, or the item should be paid for on an indemnity basis. No physician should be asked to accept as full payment an allowance which he and his colleagues consider inadequate for the services rendered.

Trustees cannot be aware of the thinking of the members of their societies unless they attend their meetings, report what the Plan is doing, and ask for suggestions. The medical society should feel that the trustee elected to represent it is conversant with the thinking of that society—that he is, in fact, its representative.

Trustees, too, should encourage their societies to appoint committees to study and consider all matters pertaining to Blue Shield.

Board's Relationship to Subscribers

Besides having a responsibility to the medical societies, the Board also has a major responsibility toward its subscribers. These responsibilities manifest themselves in legal matters, in matters dealing with finances, and with information to subscribers. Briefly, I should like to touch on each one.

The legal obligation is, of course, most important. The corporation is licensed under law. Trustees must therefore see to it that all acts of the corporation are in full compliance with the law. The types of coverage, the wording of contracts, control of payments, the nature of advertising, of investments, expenditures of funds, etc., all may have legal aspects and must, therefore, be carefully considered.

The Board of Trustees should employ competent legal counsel and should be guided by his legal advice as a matter of protection to the subscribers, the corporation and the trustees. The legal counsel should attend all meetings of the trustees and executive committee. He should have every matter having any possible legal implication referred to him for advice.

With regard to finances—there will doubtless be members of the board who are financial experts. However, the Board should appoint a finance committee to make recommendations as to investments. Ideally, this committee should recommend hiring an investment company to handle the details of investing. But the policies governing these investments should properly be decided by the Board on the recommendations of the finance committee.

As for educating the public, it may seem to some that this is an obligation not within the compass of a Board's duties. I do not agree. For the public is, truly, the Plan's most intimate concern. The public buys the contracts and their needs and desires must be determined. The public must be kept informed of the activities of the Plan; of the contents of their contracts; and, while this may seem obvious, the public also must be educated to distinguish between Blue Cross and Blue Shield. I am sorry to have to admit that even the medical profession needs education on that.

All this brings into play the matter of advertising and literature used for distribution to both doctors and subscribers. Trustees should be familiar with all publications, so as to be able to formulate the general principles governing the makeup of their contents. This would include the contents of any newsletters, bulletins, radio and television programs, as well as talks before medical societies or other groups. Trustees, naturally, are not expected to prepare this material nor to send it out, but arranging for proper distribution and dissemination is the Board's duty. Board members may also arrange speaking engagements for themselves or for their Plan executives.

Furthermore, the trustees should attend as many national meetings as possible so as to be abreast of the thinking in other parts of the country. UMS has found it very beneficial to invite not only its medical trustees but officials of its sponsoring medical societies to attend the Annual Professional Relations Conference. This Conference has given them an insight into the philosophy and problems of Blue Shield that they could not otherwise have obtained.

BOARD'S RELATIONSHIP TO BLUE CROSS

Having touched on the Board's relationship to the profession and to the public, there remains but one major area of mutual interest that is the concern of every trustee; that is, the Board's relationship to Blue Cross.

Originally Blue Shield was very small; and it started out 5 years after Blue Cross. Blue Shield, therefore, had very much to gain by a close relationship to Blue Cross. Because it was larger and had a greater fund of experience, Blue Cross was able to help the younger Plan immeasurably. Both Plans worked closely, both benefited from the sharing of talent and experience, and both grew quickly. There was a tendency in those early years, because Blue Cross was the older, more experienced partner, for Blue Cross to become the dominant half of the liaison. Now, however, the situation is changed. Blue Shield has a depth of experience it lacked before and is growing faster than Blue Cross. I believe that the two Plans should now be partners on an equal footing. Neither should dominate the other.

If we look at the Plans around the country, we see some of them completely divorced from one another. Others are almost completely unified, even to having the same personnel on both Boards. Still other Plans are separate except for a joint enrollment department. This, especially in the larger Plans, has often proved a great convenience and saving to both Plan and subscribers.

Complete integration, even of just the Boards, however, does not seem to me to be in the interest of anyone. Blue Cross is controlled by the hospitals, and Blue Shield by the physicians, and their philosophies differ in so many respects that it is hard to imagine any joint Board working smoothly without one Plan overpowering the other.

It is very disheartening to view the state of affairs that exists in those areas where the two organizations are more or less one in fact, even if not in theory. Because Blue Shield has been the junior partner it seems often to act hesitantly, without vigorous conviction in the course it must follow, content to be hand-led and spoon-fed by the elder Blue Cross. What is to be gained by one Plan hiding in the shadow of the other? Blue Shield is no longer in swaddling clothes. It has reached adult state. Both Plans are working to serve the community. They should work in harmony, yes—share those duties that will benefit both Plans—but each Plan should be master of its own fate.

The first step that should be taken to establish a Blue Shield Plan's independence is the appointing of a director separate from Blue Cross. Certainly, when Blue Shield was in its infancy, it could not afford a full-time director. Since there was a need to establish a good deal of early planning, much was gained by having Blue Cross' director also serve Blue Shield. But, again, today things have changed, and just as there is much to be gained by having separate Boards, so is there much to be gained by each Plan having its own director. The duties and respon-

Photo by Leslie French, M.D.

DR. YATER PRESIDES

DR. WALLACE M. YATER, Secretary-General of the American College of Physicians, is shown here presiding at a meeting of the College during its 1958 Annual Session in Atlantic City, N. J., April 28–May 2.

sibilities of each Plan have grown to too great a height to allow one man to fulfill both jobs effectively without one being secondary to the other.

RESPONSIBILITY OF TRUSTEES

These are matters which must be decided by the Boards of Trustees of the Plans, but they cannot be decided intelligently unless each trustee is thoroughly familiar with all aspects of his Plan's activities. It has been found, for instance, that some Boards meet only once or twice a year, and that the operation of the Plan is left entirely to the Plan director or to the Board's executive committee. This is unfortunate. Unless the Board meets frequently, how can the trustees keep abreast of what is going on, or how can they expect to decide the proper course of action for the Plan in matters that come up from day to day? Executive committees are excellent organizations but they should meet to handle emergencies, to sift material, and to make preliminary studies for presentation to the Board itself. In my opinion, the executive committee should not habitually be given the full authority of the Board.

By the same token, the Plan director should be expected to carry out the Board's policies, but the director himself should not be the one to determine policies. Plan policy should be determined by the Board and must reflect the expressed desires of the medical societies. The Plan director must carry out these desires.

Such matters as coinsurance, experience rating, and service benefits are proper matters for trustees to discuss. Their decisions, however, must reflect the many responsibilities they have to the public and the medical profession. Trustees must decide whether Blue Shield is to be a community Plan or a Plan for a favored few. But we must keep uppermost in our thoughts, that if Blue Shield does not protect the entire community, including the poor risks, the Government will step in. When it does, it will not just take the poor risks, but will sweep up everyone without exception. All one has to do is to look abroad to see what will happen if voluntary health insurance fails in this country. I shall go even further and say that if Blue Shield should fail, then we shall most assuredly see Government medicine moving in to take over.

In conclusion, I think I can safely say that being a trustee does not involve just a name or a title, but entails a mature and substantial responsibility for policies and education. Blue Shield must not fail, but it will unless the Plans work in close coöperation with their medical societies, and convince them that the Plan is not a third party but only their agent, carrying out certain technical, administrative aspects of the program the doctors themselves have set up.

Now, may I make an appeal to the profession itself? Medicine can no longer be practiced as it was 25 years ago. It involves not only art and science but socioeconomics as well. Physicians as individuals and medical societies as a whole must take an interest in the whole problem of rendering adequate medical care. The medical profession has had a 2500-year tradition of ministering to the sick. It must keep up that tradition and must itself take the leadership in programs to insure proper medical care. Unless it does, the leadership will be taken away by others.

During the past 11 years I have made 2 trips around the world and 21 trips to Europe (and I'm going again tomorrow). I have seen what has hap-

(*Continued on page 386*)

News and Personals

MEETINGS

The 1958 Public Relations Institute, sponsored by the American Medical Association, will be held at the Drake Hotel, Chicago, August 27 and 28. The meeting will be of particular interest to state and county medical society executives, public relations personnel, and public relations chairmen.

A new AMA exhibit, sponsored by the Bureau of Health Education, is scheduled for debut at the Institute. Entitled, "Seven Paths to Fitness," it emphasizes the following seven avenues to health and fitness: nutrition, relaxation, play, exercise, dental care, medical care and work. The exhibit is primarily intended for professional audiences such as physicians, educators and others having a direct interest in physical fitness. It will be available for bookings after September 1 through the Bureau of Exhibits.

The National Conference on Public Health Training, to be held in Washington, July 28–30, will be sponsored by the Public Health Service. Sixty-five representatives of professional and educational groups are expected to attend. Chairman of the meeting will be Dr. Berwyn F. Mattison, Executive Secretary of the American Public Health Association. The Conference will review responsibilities of local, state and Federal agencies for the training of public health personnel and will evaluate the PHS traineeship program. Under the Health Amendments Act of 1956, the Public Health Service awards traineeships to individuals and makes training grants to schools offering graduate courses in public health.

The George Washington University is sponsoring a new **radio and TV series** on its international affairs program, "The Other Two Billion," over WRC-TV. The 14-week series, which began Sunday, May 25 (noon to 12:30 EDT) will examine the social, economic and political ramifications of health, and will feature interviews with prominent medical personalities both in and out of Washington.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia met in regular session, May 26, 1958, with the Chairman, Dr. Herbert P. Ramsey, presiding. At its April meeting the Board set up the procedure to be followed in selecting the **Davidson Award** on the basis of papers published in the MEDICAL ANNALS each year. However, the matter of judges was not considered at that meeting. The Board decided that the judges shall consist of the Editor and two members of the Editorial Board chosen by the Editor. The judges will review the scientific articles published in the ANNALS during the preceding year and submit their choice to the Board for its approval. The presentation of the award will be made by the Editor at a meeting decided upon by the Executive Board.

In accord with the recommendation of the Committee on Public Health, the Board voted that a **Committee on Aging** be established as a Standing Committee of the Society.

Dr. Darrell C. Crain, Chairman of the Program Committee, reported that attendance at Motion Picture Nights was not sufficient to warrant sponsoring additional meetings of this type. In view of this the Board decided to discontinue them.

The Board commended the Committee on Public Information for its activities during Medical Education Week, April 20–26, as well as during the month of April, and agreed to actively support Youth Fitness Week beginning June 1, 1958.

Dr. Zigmond M. Lebensohn was authorized to represent the Medical Society at the Fifth Annual

Conference of Mental Health Representatives of the State Medical Associations at a meeting at the Drake Hotel in Chicago, November 21–22, under the sponsorship of the American Medical Association.

The Board took cognizance of the time and effort spent by Dr. Clayton B. Ethridge, Chairman, and members of his Committee on Hospital Regulations in connection with proposed hospital regulations for the District of Columbia and requested that appreciation should be expressed by the Chairman to Dr. Ethridge.

The Secretary reported that he had resigned as Secretary of Medical Service of the District of Columbia because of an increase in Medical Society activities.

The resignation of Dr. Thomas H. Alphin from the Committee on Public Policy, due to his removal to New York City, was accepted.

Special health examinations by the Public Health Service and Georgetown University Medical Center were conducted, June 9–21, in a pilot study for the **National Health Survey.** Plans called for the examination of about 200 persons, selected on the basis of a scientifically designed formula to assure a widely representative sample of the local population. Examinations were conducted in three specially equipped trailers outside the Georgetown University Hospital.

The local study is the first of several designed to perfect the technics of giving a special health examination in a uniform way in many areas of the country, both urban and rural. The examining procedure is designed to collect comparable information on all the individuals in the group, both the sick and well. It does not amount to a complete medical examination. Rather, it will determine the presence or absence of a limited number of diseases and will obtain certain measurements such as height, weight, and blood pressure level. The examination is not intended as a prelude to any kind of treatment.

Dr. Alice M. Waterhouse, Medical Advisor to the U. S. National Health Survey, is the project officer for the Public Health Service, and Dr. Basil Blumenthal, Director of the Georgetown Hospital Outpatient Department, is Georgetown's project director in the pilot study.

Dr. Mathew Ross, of Beverly Hills, California, will succeed **Dr. Daniel Blain** as **Medical Director of the American Psychiatric Association,** September 1.

MATHEW ROSS, M.D.
New Medical Director of APA

Dr. Ross is Assistant Clinical Professor of Psychiatry and Psychology at the University of California in Los Angeles Medical Center. He has been in private practice in Los Angeles and has served as Attending Psychiatrist at the UCLA Medical Center, Mt. Sinai Hospital, Compton Sanitarium, and at other hospitals in the same area.

A native of Massachusetts, Dr. Ross graduated from Tufts Medical College in 1942. In World War II, he served as a Major in the Army Medical Corps in the European Theatre.

He is a diplomate of the American Board of Neurology and Psychiatry. He has been a member of the APA since 1948 and a Fellow since 1953.

Dr. Blain, who has been Medical Director since 1948, will continue to direct special projects for APA. In resigning, he stated that he wished to be free to devote his entire attention to selected problems that are major stumbling-blocks to further progress in conquering mental illness. He cited the shortage of psychiatrists to staff mental hospitals and other community services as the greatest single impediment to headway.

Dr. Blain was formerly Professor and Chairman of the Department of Psychiatry at Georgetown University School of Medicine and is still Clinical Professor of Psychiatry. From 1945 to 1948 he directed the Veterans Administration neuropsychiatric program during the vast expansion of VA medical services after the War. He has held numerous other positions in mental hospitals and in private practice, and has contributed many articles to the professional literature of his field.

DANIEL BLAIN, M.D.
Medical Director of APA, 1948–58

The Institute for Advancement of Medical Communication, a non-profit organization, was recently formed to study and develop ways to increase the efficiency of information exchange among medical scientists, medical educators, and practicing physicians. The greatly accelerated pace of medical research today requires new technics and media to handle the ever-increasing flow of knowledge. The work of the Institute will be financed by general and research grants from private foundations and from agencies, private and Federal, which support medical research.

The charter members of the Board of Directors are Dr. Chauncey D. Leake, Professor of Pharmacology and Assistant Dean, College of Medicine, Ohio State University; Dr. Homer W. Smith, Professor of Physiology, New York University, College of Medicine; and Dr. Ivring S. Wright, Professor of Clinical Medicine, Cornell University. Dr. Richard H. Orr, Assistant Editor of the journal *Metabolism* and formerly Medical Director of Grune and Stratton, Inc., will serve as Executive Director. The temporary headquarters of the Institute are at 37 East 67th Street, New York 21, N. Y.

The first **Staff Dinner of the new Washington Hospital Center** was held at the Hotel Statler, June 2. This event is a continuation of the former annual staff dinner of Garfield Memorial Hospital.

Dr. Ralph M. Caulk, President of the Medical Staff, presented awards to three winners of papers presented in competition by resident physicians. Dr. Gerold Klein, fourth year resident in surgery, received top award of $100 for the third consecutive year. His paper this year describes "A New Concept in the Treatment of Burns."

Second and third award winners, respectively, were Dr. Prokopes Colevas, $75, for his report on "The Final Diagnosis in 426 Cases Having One or More Serum Amylase Determinations," and Dr. Kuros Tabari, $50, for his paper on "An Unusual Complication of Spontaneous Internal Biliary Fistula."

Another pleasant custom carried over from the Garfield event was the awarding of gold-headed canes to members of the staff. Those honored this year were **Drs. Thomas Bradley, Herbert Schoenfeld, Walter A. Wells, and W. Cabell Moore.**

The Pre-commencement Exercises of George Washington University School of Medicine, June 3, held in the Medical Society's building, commemorated through awards and prizes several deceased Medical Society members.

The Oscar Benwood Hunter Award in Pathology, a sum of $100 which goes to the member of the graduating class who has demonstrated outstanding ability in pathology, was presented to Steven Everett Levy by Dr. Donald H. Leeper, Jr., President of the George Washington University Medical Society.

The Huron W. Lawson Prize, established by Mrs. Lawson in memory of her husband, Dr. Huron W. Lawson, a distinguished member of the medical staff of the George Washington University from 1903 to 1932, is given annually to the graduating student who has demonstrated exceptional proficiency in the field of obstetrics and gynecology. This prize of $100 went to Hardin Elling Olson.

The Howard F. Kane-A. F. A. King Obstetrical Society Prize, a subscription to a journal in the specialty of obstetrics and gynecology, is awarded annually to the member of the class who presents the outstanding thesis in obstetrics and gynecology. The recipient this year was Jason Faht-Gong Yee.

The John Ordronaux Prize of $150, in recognition of the highest scholastic standing in the class, was presented to Robert John Levine.

Charles Hilary Troshinsky received the Allie S. Freed Award for demonstrating exceptional proficiency in the field of preventive medicine.

Miss Claire Louise Hammel received three awards, one from the Jacobi Medical Society in pediatrics, presented for the Society by Dr. Carl Silverman; the Hoffman-LaRoche Award, a gold watch, for outstanding performance as a medical student; and an Honorable Mention Citation from the American Medical Women's Association.

The Oath of Hippocrates was administered to the 90 graduates by Dr. John Parks, Dean of the School of Medicine. The address of the evening was delivered by Dr. Harold Stevens, Professor of Neurology.

In the fall the **Washington School of Psychiatry** will be housed in its own building at 1610 New Hampshire Avenue, N.W., its first permanent home. Space will be allotted for a proposed clinic for treatment and for facilities for research and teaching. The purchase price of the building was reported as $65,000, with alterations, remodeling and equipment expected to cost another $35,000.

The new building will also be the publication office of the quarterly journal, *Psychiatry*, published by the William Alanson White Psychiatric Foundation, which is the parent organization of the Washington School.

These plans were announced by Mr. Seymour S. Mintz, President of the Washington School, and Dr. Dexter Bullard, President of the White Foundation.

A campaign is now under way to raise $300,000 through public contribution. Most of this sum will be used to set up an intrafamily psychiatric clinic; it should provide enough money to equip, staff and operate the clinic for 3 years.

Dr. George J. Weinstein has succeeded **Dr. Raymond Feldman** as Chief of the **Veterans Administration Outpatient Psychiatry.** Dr. Weinstein comes from VA's regional office in New York City where he was Chief of the Mental Hygiene Clinic. He is a graduate of the Long Island College of Medicine (1926) and a diplomate of the American Board of Psychiatry and Neurology. A veteran of World War II, he was area consultant for the Antilles Department of the Army. Dr. Feldman is now associated with the National Institutes of Health.

Dr. James V. Lowry has been appointed Chief of the **Bureau of Medical Services of PHS** with the rank of Assistant Surgeon General. Deputy Chief of the Bureau since 1957, he succeeds Dr. John W. Cronin, who died, March 26, 1958.

Dr. Lowry, a native of Wisconsin, received his medical degree from the University of Wisconsin School of Medicine. Prior to his appointment as Deputy Chief of the Bureau, he served as Medical Officer in Charge of the Public Health Service Hospital, Lexington, Ky., where patients are treated for mental disorders, including narcotic addiction.

Dr. John B. Youmans, resigning Dean of Vanderbilt University School of Medicine, has been appointed **Technical Director of Research** in the Office of the Army Surgeon General in Washington, D.C., and will assume his new duties, September 1. He has served as Dean and Professor of Medicine at the Vanderbilt University since 1950.

As Technical Director of Research, Dr. Youmans will serve as principal advisor to the Surgeon General of the Army and to the Chief of the Research and Development Division in the Surgeon General's

Office on all scientific and technical matters concerning research and development.

Dr. David McKenzie Rioch, Director of the Division of Neuropsychiatry at the Walter Reed Army Institute of Research, has been granted a year's leave of absence to become a member of the Institute for Advanced Study at Princeton, New Jersey. Admission to the Institute is by vote of the faculty and only those academicians who have already taken their highest degrees can apply for membership.

During his tenure at the Institute for Advanced Study, Dr. Rioch will devote his time and energies to a project entitled, "The Anatomy of the Striatum and Its Relationship to the Cortex." He will also pursue a theoretical problem, "The Parameters of Human Behavior."

Dr. Rioch has achieved international recognition for his outstanding contributions in the field of neuropsychiatry.

Mr. C. P. Loranz, well known to Washington members of the Southern Medical Association, received an honorary degree of Doctor of Science from Erskine College in Due West, South Carolina, on June 2. In conferring this degree, the College recognized his contributions to medical progress during his 46 years of service to the Southern Medical Association. Mr. Loranz began his career with the Association in 1912 in the capacity of Business Manager. In 1921 he was elected Secretary, Treasurer and General Manager with the title of Secretary-Manager. Since 1954 he has served in an active advisory and professional relations capacity.

The Washington Academy of Surgery has elected new officers as follows:

Dr. Edward A. Cafritz, *President*; Dr. Leo B. Gaffney, *Vice President*; Dr. John H. Bayly, *Secretary-Treasurer*; and Dr. J. Blaine Harrell, *Assistant Secretary-Treasurer.*

The following new officers of the **Jacobi Society of Washington** were elected May 19, 1958:

Dr. Stanley W. Kirstein, *President-elect*; Dr. Harold Sterling, *Vice President*; Dr. Marvin P. Footer, *Secretary*; Dr. Jack J. Rheingold, *Treasurer*; and Dr. Melvin O. Goodman, *member of the Executive Committee for 3 years.*

Dr. Carl Silverman, President-elect during 1957–58, is the new President.

In an election of officers, May 7, the **Washington Dermatological Society** voted to install the following:

Dr. Raymond A. Osbourn, *President*; Dr. Peter N. Horvath, *Vice President*; and Dr. June C. Shafer, *Secretary-Treasurer.*

PERSONALS

Dr. Leroy E. Burney, Surgeon General of the Public Health Service, was elected President of the World Health Organization, May 29, in Minneapolis, during the 11th World Health Assembly. He is the second American to head the world-wide organization. Dr. Leonard A. Scheele was President of the Fourth Assembly while he was Surgeon General.

As President of W.H.O., Dr. Burney presented the Leon Bernard Foundation prize to the former Surgeon General of PHS, **Dr. Thomas Parran,** now Dean of Medicine at the University of Pittsburgh. The prize was established by the League of Nations in recognition of outstanding achievements in the field of social medicine. Dr. Parran was chosen because of his outstanding contributions to the development of PHS services, particularly in expanding national control programs against venereal diseases, tuberculosis, and cancer, and for providing assistance to states establishing large-scale programs of grants for hospital construction.

Both Dr. Burney and Dr. Parran are Honorary members of the District Medical Society.

Dr. Robert E. Moran, Associate Professor of Surgery at Georgetown University School of Medicine, took office as President of the American Association of Plastic Surgeons, May 22. Dr. Moran is Chief of Plastic Surgery at the Washington Hospital Center and consultant in his field to the National Institutes of Health and the Naval Medical Center in Bethesda. He is Past President of the Washington Academy of Surgery and the Eastern Surgical Society.

Dr. Laurence H. Kyle, Professor of Medicine at Georgetown University School of Medicine, took over the chairmanship of the Department of Medicine, July 1, when Dr. Hugh H. Hussey relinquished the post to become Dean of the School of Medicine.

Dr. Kyle is a native of Huntington, Mass., and an alumnus (1941) of the Boston University School of Medicine. He was in the military service from 1942 to 1945.

LAURENCE H. KYLE, M.D.

After postgraduate study in internal medicine at Boston City Hospital, Dr. Kyle joined the Georgetown faculty as a research fellow in endocrinology. In 1948 he was made William Wade Hinshaw Cancer Research Fellow. The same year he was appointed Instructor in Medicine and last year was advanced in rank to the position of Professor of Medicine.

Dr. Kyle is on the visiting staff of Georgetown University and the District of Columbia General Hospitals. He is consultant in metabolism and internal medicine to Walter Reed Army Medical Center, the Clinical Center of the National Institutes of Health, U. S. Naval Hospital in Bethesda, and the Veterans Administration Hospital. He has been director of the Metabolic Clinic at Georgetown Hospital since 1948 and has been director of the Metabolic Laboratories since 1950.

Dr. Kyle is a diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, and is a member of many other scientific organizations. He has received wide recognition for his original investigations in endocrine and metabolic disorders, and is well known as a lecturer and author.

Dr. James W. Watts was elected Vice President of the Harvey Cushing Society during its 26th Annual Meeting at the Mayflower Hotel in Washington, April 21–23. Dr. Watts was Chairman of the Arrangements Committee for the meeting, which was attended by approximately 500 neurosurgeons. Other physicians who were responsible for the excellent caliber of the program and for the social functions were Drs. O. Hugh Fulcher, J. Peter Murphy, William T. Spence, and Jonathan Williams.

Dr. Eleanor E. Short became Acting Chief of the Alcoholic Rehabilitation Division of the District Department of Public Health, May 15, upon the resignation of the Chief of the Division, **Dr. Anthony Zappala.**

Dr. Short, a graduate of Temple University School of Medicine, joined the staff of the D. C. Bureau of Mental Hygiene in 1950 as staff psychiatrist. After two years she became staff psychiatrist of the Alcoholic Rehabilitation Division and in 1954 was appointed Assistant Chief of this Division.

Dr. Zappala, Chief of the Division since 1953, resigned to enter full-time psychiatric practice.

Dr. Russell S. Page, Jr. and **Dr. Charles P. Waite,** the latter an Associate member of the Medical Society, were reappointed members of the Professional Vocational Rehabilitation Advisory Council to the D. C. Board of Commissioners for a term of 3 years, beginning, April 3, 1958.

On May 20, during the Annual Meeting of the American Gynecological Society in Asheville, N. C., two members of the District Medical Society were elected to office. **Dr. Andrew A. Marchetti,** Professor of Obstetrics and Gynecology at Georgetown University School of Medicine, was elected Secretary, and **Dr. John L. Parks,** Dean of George Washington University School of Medicine, was reëlected Treasurer.

Dr. Roger Baker, Professor and Director of the Department of Urology at Georgetown University School of Medicine, was elected Secretary of the Board of Directors of the American Urological Research Foundation at its annual meeting in New Orleans, April 28–May 1, 1958.

Dr. Howard T. Karsner, Medical Research Advisor to the Surgeon General of the Navy, has been reëlected a member of the Editorial Board of the *American Journal of Pathology*, official publication of the American Association of Pathologists and Bacteriologists. The election is for a term of 7 years.

Two members of the Medical Society were elected to the office of Vice President, to represent the Colleges from which they graduated, at the annual meeting of the General Alumni Association of George Washington University. **Dr. Donald H. Leeper** will represent the School of Medicine for the coming year, and **Mr. F. Royce Franzoni,** the School of Pharmacy. Mr. Franzoni is an Associate member of the D. C. Medical Society.

Dr. Richard Lee Spire, "dean of Sibley alumni," was honored by the alumni of Sibley Memorial Hospital, May 15, for his 51 years of association with the Hospital.

The testimonial dinner for Dr. Spire at the Kenwood Country Club culminated the first scientific meeting of the Sibley Memorial Hospital Alumni Association. More than 150 present and former members of the Sibley staff met at the Hospital for a day of medical meetings and discussions. Dr. Spire is Chief of the Medical Department of the Hospital and has been a staff member for 35 years. He is still in practice with his son at 4601 16th Street, N.W.

Dr. W. Luther Hall was certified by the American Board of Internal Medicine in April.

Dr. J. Roscoe Creer was installed as President of the Washington Host Lions Club, June 4, at a luncheon meeting at the Mayflower Hotel.

Dr. James A. Gannon, Jr., was elected President of the Cathedral Heights-Cleveland Park Citizens Association, May 20.

Dr. John R. Pate was elected President of the Civitan Club of Washington, May 20.

Dr. J. R. B. Hutchinson, Associate member of the D. C. Medical Society, will serve as a Vice President of the Arlington Tuberculosis and Health Association for the coming year.

Four members of the Medical Society of the District of Columbia have recently attained Life Fellowship in the American Psychiatric Association, a status reached after 30 years' membership. They retain all the rights and privileges of Fellows without payment of dues. **Drs. Agnes Conrad, John R. Ernst, Roscoe W. Hall and Edward H. Reede** are the new Life Fellows in the Washington area.

EDWARD YOUNG DAVIDSON, M.D.
(1861–1958)

Dr. Edward Young Davidson died, May 22, 1958, at the Masonic and Eastern Star Home where he had lived for the past 2 years after retiring from practice at the age of 95. He was a Life member of the Medical Society of the District of Columbia and its oldest living member prior to his death.

Dr. Davidson leaves his own memorial to the Medical Society—its Home Building at 1718 M Street, N.W. He conceived the idea of a home for the Society when he was President and incorporated his recommendation for its erection in his Presidential Address, which he delivered on December 15, 1916. He was appointed Chairman of the Building Committee, and it was due almost entirely to his own efforts that a fund sufficient for the purpose was accumulated. For him it was a labor of love, the story of which he often told with humor and with understandable pride.

The building was dedicated in 1921 and bears a plaque which recognizes the contribution he made. Fittingly, too, a handsome portrait of Dr. Davidson, commissioned by the Society, was hung in the Board Room in 1948. It is the work of Bjorn Egeli, well known portrait artist.

EDWARD YOUNG DAVIDSON, M.D.

Dr. Davidson "at home" in his office on his 90th birthday, April 10, 1951. He had practiced in the same office for 57 years.

On May 1, 1929 the Society adopted a resolution to appropriate a sum "to establish and endow in perpetuity the Davidson Lecture" as a memorial to Dr. Davidson for the services he had rendered the Society by "initiating and guiding to a successful completion the project of building and owning its own home." The Davidson Lecture was delivered biennially from 1931 through 1953. In 1955 the Lecture was omitted, and in 1957 the Executive Board voted to change the Lecture to an Edward Y. Davidson Award on the basis of recognizing the outstanding paper published each year in the Medical Annals.

Dr. Davidson was born in Petersburg, Virginia, April 10, 1861, the day Fort Sumter was first called on to surrender. When the War ended he was living with his mother in a tent on the outskirts of the town. His father was in a Northern prison.

He came to Washington as a young man to enroll for medical study at Columbian (now George Washington) University. He graduated in 1894, and for two years was Assistant Demonstrator in Anatomy at Columbian University. He began private practice the same year he graduated and for some 60 years maintained his offices at 512 East Capitol Street. His later years were spent in study and consultation, but many old patients continued to come to him for treatment.

He became a member of the old Medical Association of the District of Columbia, which later amalgamated with the Medical Society of D. C., in 1906. He was a member and Past Master of the Masonic Hope Lodge.

During World Wars I and II he served as a draft board medical examiner.

In 1941 the Medical Society awarded Dr. Davidson its first Certificate for Meritorious Service. The last time he visited the Society's building was in April 1956 when the Society, at the suggestion of its President, Dr. W. Ross Morris, honored its Past Presidents. On April 10, 1951, on Dr. Davidson's 90th birthday, the President of the Society, Dr. William M. Ballinger, the late Dr. John B. Nichols,* and two members of the office staff called on him at his home to offer congratulations. He was again remembered officially on his 96th birthday, in 1957, when members of the Society held a reception for him at the Eastern Star Home.

His wife, Mrs. Ella Goldsmith Davidson, and a son, Edward Young Davidson, Jr., preceded him in death. He is survived by two daughters, Mrs. Dorothy Davidson Pitzer, 1310 Floral Avenue, N.W., and Mrs. Billy Castell, of Alban Towers; and a brother, Dr. Albert S. Davidson, 506 A Street, S.E.

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* Under the series, "Our living Past Presidents," Dr. Nichols wrote a delightful and sensitive biography of Dr. Davidson, which was published in the November, 1949 issue of the Annals.

MAZARIN CAMPBELL DOLLMAN, M.D. (1879–1958)

Colonel Mazarin Campbell Dollman, M.C., U.S.A. (ret.), died, May 13, 1958, at Walter Reed Army Hospital where he had been hospitalized for eight weeks. Since retiring from the Army in 1944, Dr. Dollman had engaged in private practice, specializing in internal medicine, with offices at his home, 4956 Quebec Street, N.W.

Dr. Dollman was born, February 28, 1879 in Gala, Va. His parents were Joshua E. and Nancy Campbell Dollman. He attended the public schools in Virginia and New Castle Academy at New Castle, Va. In 1901 he graduated in chemistry from Virginia Polytechnic Institute. Enrolling for the study of medicine at George Washington University, he received his degree in 1907, followed by two years as intern and resident at Garfield Memorial Hospital.

Dr. Dollman will be remembered longest for his philanthropic contributions. In 1910 he joined the staff of the Washington Home for Incurables and served voluntarily for the next 27 years as medical director of the institution. He was a pioneer in slum clearance in the District of Columbia and was instrumental in bringing about legislation for the construction of better homes for Washington's underprivileged.

From 1916 to 1930 he was on the staff of Georgetown University School of Medicine as Associate Professor of Internal Medicine. He was on the hospital staff of Garfield Memorial Hospital as associate visiting physician from 1910 to 1915 and on the consulting staff from 1920 to 1957.

In 1916 Dr. Dollman took leave of absence from his medical duties to participate in the Mexican Border Campaign, and for the next 30 years was an active member of the National Guard and Army Reserve Corps. He served during both World Wars. During World War I he was commanding officer of the 72nd General Hospital, assigned to Meves, France, and later was named to the staff of the Commanding General at Fort of Brest, France.

From 1938 to 1941 Colonel Dollman served at Walter Reed Army General Hospital on the board which was responsible for the selection and promotion of reserve officers. With the outbreak of World War II, he was recalled to active duty and assigned to Fitzsimons General Hospital in Denver, Colorado, where he became commandant of a new enlisted medical technicians' school. Later he was post surgeon at Ft. McDowell, Angel Island, California.

Dr. Dollman was elected an Active member of the Medical Association of the District of Columbia in 1909 and continued his membership after its amalgamation with the Medical Society until 1932. He was reëlected to Active membership in 1941. He was a member of the George Washington University Medical Society, a charter member of the Congressional Country Club, and for many years was a member of the University Club, the Washington Chamber of Commerce, and the Washington Board of Trade.

Surviving him are his wife, Mrs. Alice Micklow Dollman; his daughter Mrs. Alicia McComsey, of Toms River, N. J.; and two sisters, Mrs. Frank Van Arsdale and Mrs. E. M. Wright, both of Newport News, Va.

Hypertonic Dehydration—Cramer, Haverback and Smith

(*Continued from page 335*

20. Ward, A. A., Jr., and McCulloch, W. S.: Ibid., 1947, **10**, 309.
21. Bernard, C., in Cushny, A. R.: The Secretion of the Urine, 2nd ed. London: Longmans, 1926, p. 135.
22. Lewy, F. H., and Gassmann, K. F.: Am. J. Physiol., 1935, **112**, 504.
23. Stevenson, J. A. F., Welt, L. G., and Orloff, J.: Ibid., 1950, **161**, 35.
24. Gruber, C. M.: Physiol. Rev., 1933, **13**, 497.
25. Smith, H. W.: The Physiology of the Kidney. New York: Oxford, 1937, p. 245.
26. Kaplan, S. A., and Rapoport, S.: Am. J. Physiol., 1951, **164**, 175.
27. Wesson, L. C., Jr., Anslow, W. P., Jr., and Smith, H. W.: Bull. New York Acad. Med., 1948, **24**, 586.
28. Merrill, A. J.: Am. J. Med., 1949, **6**, 357.
29. Borst, J. G. G., in Lewis, A. A. G., editor for Renal Association, and Wolstenholme, G. E. W., editor for the Ciba Foundation: Ciba Foundation Symposium on the Kidney Arranged Jointly with Renal Association. Boston: Little, 1954, p. 255.
30. Gamble, J. L.: Proc. Am. Philos. Soc., 1944, **88**, 151.
31. McCance, R. A., Young, W. F., and Black, D. A. K.: J. Physiol., 1944, **102**, 415.
32. Bland, J. H.: Clinical Recognition and Management of Disturbances of Body Fluids, 2nd ed. Philadelphia: Saunders, 1956, p. 446.
33. Best, C. H., and Taylor, N. B.: The Physiological Basis of Medical Practice: A Text in Applied Physiology, 5th ed. Baltimore: Williams & Wilkins, 1950.

34. Danowski, T. S., Elkinton, J. R., and Winkler, A. W.: J. Clin. Investigation, 1944, **23**, 816.

Meprobamate in Orthopedic Surgery—Wein

(*Continued from page 349*)

mend the drug to the orthopedic surgeon for relief of muscle spasm associated with injuries to osseous, cartilaginous, ligamentous or muscular structures.

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BIBLIOGRAPHY

1. Lamphier, T. A.: Role of meprobamate in postoperative surgical care. Ann. New York Acad. Sc., 1957, **67**, 810.
2. Smith, R. T., Hermann, I. F., Kron, K. M., and Peak, W. P.: Meprobamate (Miltown) in rheumatic diseases. J.A.M.A., 1957, **163**, 535.
3. Berger, F. M.: Pharmacological properties of 2-methyl-2-n-propyl-1,3-propanediol dicarbamate (Miltown), new interneuronal blocking agent. J. Pharmacol. & Exper. Therap., 1954, **112**, 413.
4. Berger, F. M.: Meprobamate; its pharmacologic properties and clinical uses. Internat. Rec. M., 1956, **169**, 184.
5. Smith, R. T.: Drugs for improvement of neuromuscular coördination. J. Am. Geriatrics Soc., 1957, **5**, 152.
6. Gillette, H. E.: Effect of meprobamate on cerebral palsy. Ann. New York Acad. Sc., 1957, **67**, 859.
7. Schlesinger, E. B.: Value of muscle relaxants in disorders of muscle tone. Ibid., 1957, **67**, 833.
8. Polner, L., in Correspondence: J.A.M.A., 1956, **162**, 137.

Meprobamate for Alcohol Addiction—Steiner

(*Continued from 351*)

In the 63 patients treated with meprobamate for 1 year, there was no instance of toxicity, addiction, or withdrawal symptoms. Patients reduced dosage and stopped the drug of their own accord.

Giving drugs is, in one sense, a way of proving personal interest to the patient. It is hoped that he may be able to favorably translate the gesture into terms of interpersonal relatedness.

The drug was often dispensed in 50- or 100-tablet amounts. Perhaps the freedom with which meprobamate can be given, as opposed to necessary restrictions of barbiturate therapy, has a positive value for the patient. It seems, on the surface, that meprobamate is either a better drug and/or better bait for the psychiatrist than medicines previously used.

In any event, it is a touch-and-go problem with the alcoholic. He may return after months of absence and really engage in psychotherapy, as statistics in this paper indicate. It becomes, therefore, the burden of a therapist to keep his expectations of the patient at a low level and his own hope always alive.

Dermabrasive Surgery—Robinson

(*Continued from page 354*)

BIBLIOGRAPHY

1. Kurtin, A.: Paper presented before a meeting of the Dermatologic Section of Mt. Sinai Hospital in New York City in January, 1952.
2. Robinson, M. M.: Removal of cosmetic defects by dermabrasive surgery. M. Ann. District of Columbia, 1955, **24**, 17.
3. Robinson, M. M.: Dermabrasion of cosmetic defects. Ibid., 1956, **25**, 673.
4. Robinson, M. M.: New device for spraying commercially available Freon 114 (dichlorotetrafluoroethane). A.M.A. Arch. Dermat., 1957, **76**, 250.

Planning Your Estate—Caplan

(*Continued from page 368*)

If you are disturbed, that has been my purpose. If as a result of the motivating I have done, you will go out and do something about it, I've achieved my objective. If you have your will drawn or reviewed, your estate plans brought up to date, then this afternoon will have been profitable to you and your family.

Trustees and the Blue Shield—Bauer

(*Continued from page 376*)

pened when the medical profession weakened and permitted itself to be thrown off the tracks by a Government machine. I have seen the debasing of the standards of medical care. I shudder to think what will happen—in fact, what is happening right now—in this country as a result of the apathy of the medical profession.

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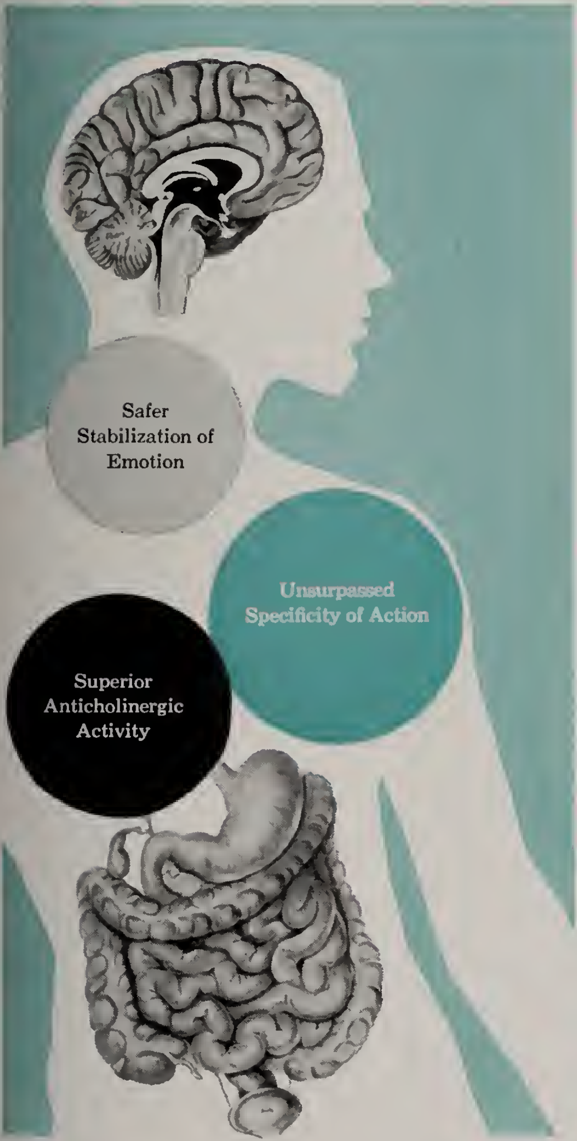

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Book Reviews

Current Therapy 1958. Latest Approved Methods of Treatment for the Practicing Physician. Edited by Howard F. Conn, M.D., with contributions by 297 authorities. Price, $12.00. Pp. 827. Philadelphia: Saunders, 1958.

This volume represents the latest approved methods of treatment for the practicing physician. The first section on infectious diseases describes the characteristics of each infection, with recommended treatment. Antibiotics are mentioned by trade names as well as generic. Schedules for active immunization to the common infectious diseases are presented in an outline form with doses recommended for various age groups.

The section on diseases of the respiratory system emphasizes the use of aerosolized detergents combined with bronchodilator drugs. Physical therapeutic procedures to depress the overexpanded lung of chronic pulmonary emphysema are described. Recommendations for selection of patients to be treated for pulmonary tuberculosis along with a discussion of antibacterial drug therapy and surgical procedures are clearly outlined.

In the chapter on treatment of diseases of the cardiovascular system, some repetition is noted on the management of hypertension. Details of Veratrum, Hydralazine, Rauwolfia, and blocking agents are furnished by 2 authors. In the management of myocardial infarction, the newer oral anticoagulants including Sintrom, Hedulin-Danilone, Dipaxin, and Miradon are summarized.

Cortisone derivatives, chemotherapeutic agents such as nitrogen mustard, Chlorambucil, and Myleran, and radioisotopes (Fe^{59} and P^{32}) are adequately described in a section devoted to diseases of the blood and spleen.

The chapter on digestive diseases includes an excellent article on parenteral fluid therapy. Orinase therapy in diabetes, thyrotrophic (TSH) hormone in the diagnosis of thyroid responsiveness, and radioiodine (I^{131}) are described in sections devoted to metabolic and endocrine diseases.

Antihistamines, steroid hormones, and allergenic hyposensitization programs are outlined in a separate section. Drug therapy of epilepsy includes a description of the newer barbiturates (Mebaral, Gemonil, and Butisol) as well as the hydantoinates (Dilantin and Mesantoin).

Obstetric and gynecologic conditions and diseases due to physical and chemical agents complete the compendium.

All in all, this book is a handy reference for the family physician and should be particularly valuable to the intern on service in the hospital's emergency room.

Samuel J. N. Sugar, M.D.

Textbook of Medical Treatment, 7th ed. Edited by D. M. Dunlop, M.O., F.R.C.P. Price, $11.00. Pp. 923. Baltimore: Williams & Wilkins, 1958.

The astonishingly rapid development of new and better drugs makes any textbook on medical treatment obsolete before the print is dry. Even though its editor admits that "it has been found necessary to revise thoroughly every page of this book," the seventh and latest edition of this English text is not "late" enough.

The book is a potpourri of contributions by various authors. For this reason reduplication and contradictions are rampant. The terminology is definitely English. For most readers the names of drugs, weights, and measures will have to be looked up in the glossary. This is truly a nuisance.

Preferences in treatment modalities are sometimes regional and individualistic even in this country. However, I doubt that anyone here would consider cerebral thrombosis a contraindication to anticoagulant therapy (page 94). Chloramphenicol is placed among the really dangerous drugs (page 76) and its use relegated to absolute emergencies. The feeling in this country toward this drug has been less alarming recently and its use more general with adequate caution. Isuprel sublingually is certainly the drug of choice in the treatment of Stokes-Adams syndrome (page 560), yet it is not mentioned in this book. The chapter on the corticosteroids is too short, and with the arrival of two new steroids (triamcinolone and 6-methylprednisolone), antiquated. Diuril is of too recent vintage to be included.

Comparisons are sometimes odious, but Beckman's excellent text on "Drugs, Their Nature, Action and Use" (1958) is more detailed and better organized. There are logical groupings of drugs according to their basic pharmacologic effect. Medical treatment, however, consists not only in the use of drugs but in the art of handling the patient. This is amply proven by this English book on therapeutics. It contains many detailed, sane, and artful paragraphs of excellent suggestions in the general management of the patient. There are excellent chapters on chronic rheumatic diseases, psychotherapy in general practice, and physical therapy. These chapters are strong reminders that medicine is still an art and not an exact science.

Bernard E. Nunez, M.D.

General Pathology Based on Lectures Delivered at the Sir William Dunn School of Pathology, University of Oxford, 2nd ed. Edited by Sir Howard Florey. Con-

(Continued on page 42)

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(*Continued from page 38*)

tributions from 15 authors. Price, $16.00. Pp. 932, illustrated. Philadelphia: Saunders, 1958.

For this second edition, the editor has assembled the work of 14 recognized British authorities. These treatises together with the 10 chapters written by Florey himself constitute a 932-page book.

The book begins with a beautifully written chapter concerning the history and scope of pathology, and many other chapters include an introductory historical paragraph.

Some of the chapters, such as those concerned with blood coagulation, shock, fever and edema, combine physiology and pathology in such a way as to make interesting reading for both physicians and medical students.

Minute basic details so often unexplained in other textbooks are clearly and briefly described. This is particularly true of the chapters on cellular reaction to viruses, the production of antibodies, immunity and anaphylaxis.

Two particularly good chapters describe the necessary fundamental physics and the biological effects of radiant energy.

Approximately 35 references are found for each chapter, often to recent articles, including many of American origin. The book is well bound and the paper is of good quality. The photomicrographs are very good and the diagrams are simple and clear. The index is complete, accurate, and well organized.

T. WINSHIP, M.D.

Endrocrine Pathology of the Ovary. JOHN MCLEAN MORRIS, M.D., AND ROBERT E. SCULLY, M.D. Price, $8.50. Pp. 151, with 75 illustrations. St. Louis: Mosby, 1958.

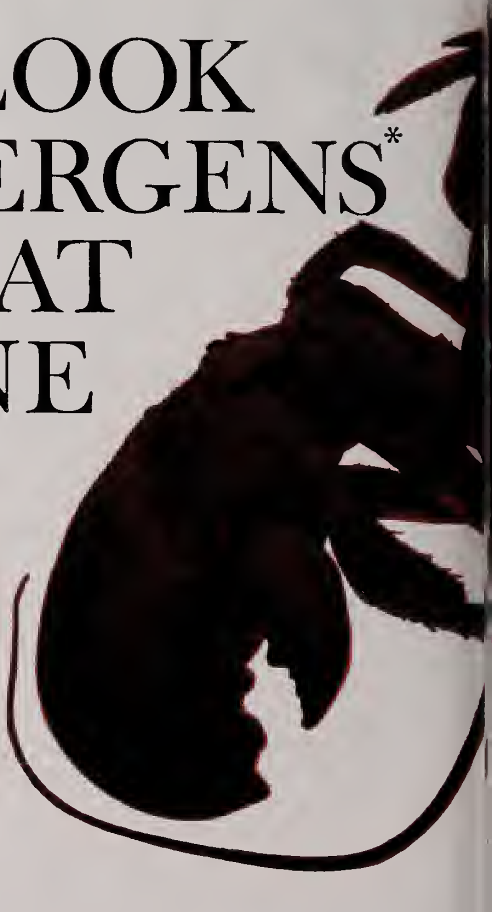
The authors have made a Herculean attempt to bring order and system to a very confusing subject. In most instances they have succeeded admirably; in others, they have added to the chaos.

The book represents a very scholarly and undogmatic approach to the pathology of the ovary as related to endocrine effects. There is a concise review of the embryology of the gonads, sexual differentiation, and hormonal assays. The functioning ovarian tumors are classified by morphology into 5 groups:

1. Sex cord-mesenchyme tumors
2. Lipoid cell tumors
3. Germinoma-teratoma group
4. Mixed germinoma-sex cord mesenchyme tumors (gonadoblastomas)
5. Miscellaneous tumors with "functioning stroma."

Each tumor is then thoroughly discussed as to pathology, history, incidence, histogenesis and etiology, endocrine effects, prognosis, and treatment. The illustrative

(*Continued on page 43*)



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*Sea food—source of highly potent allergens. Typical are: lobster; tuna; sturgeon roe; fish oil used to prepare leather, chamois, soaps; cuttlefish bone for polishing material and tooth powder; glues made from fish products.

(*Continued from page 42*)

case reports are concise and to the point. The 75 photomicrographs in black and white are very well selected and represent excellent photography. Each chapter contains an extensive bibliography, and the book is very well indexed, which should prove of great benefit to future researchers in the subject.

The book should prove of value to the student, the pathologist, the gynecologist, the internist, and the pediatrician as a rich source of information on these fascinating ovarian abnormalities. In general, the collaboration of Harvard (Dr. Scully) and Yale (Dr. Morris) has been very successful.

William Tenenblatt, M.D.

Ciba Foundation Symposium on Drug Resistance in Micro-Organisms. Mechanisms of Development. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc., Editors for the Ciba Foundation. Price, $9.00. Pp. 352, with 62 illustrations. Boston: Little, 1957.

This volume contains the papers and discussions presented during March 1957 at a Symposium on Drug Resistance in Microörganisms. The participants include many of the prominent authorities in microbial biochemistry, physiology, and genetics. The usual format is maintained wherein the formal presentations are followed by the equally valuable informal discussions. The bibliographies are fairly comprehensive.

The Symposium deals with fundamental approaches to investigations of development of microbial resistance to various chemical and antibiotic agents. The main theme dominating the individual papers is the question of whether resistant forms emerge as the result of genetic mutation and natural selection or as the result of directed physiological adaptation. The consensus favors the former mechanism. The papers present in various detail the experimental methods and interests of the authors utilized in investigating this problem. The discussion in this book concerns itself with the relationship between chemical structure and biological action with an attempt to provide clearer insight into the development of drug resistance. The altered physiology of resistant forms is also touched upon.

This book, with its emphasis on bacterial genetics, biochemistry, and physiology, is directed primarily to laboratory investigators whose spheres of activity encompass these fields. Physicians interested in practical therapeutics will not find this a useful volume. The implication of the Symposium is that the ultimate resolution of microbial drug resistance may emerge indirectly as the result of application of unrelated laboratory disciplines to a problem that is presently of extreme clinical urgency.

Edward A. Beeman, M.D.

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Robins

[1] Thomas, J. W.: Ann. Allergy 16:128, 1958

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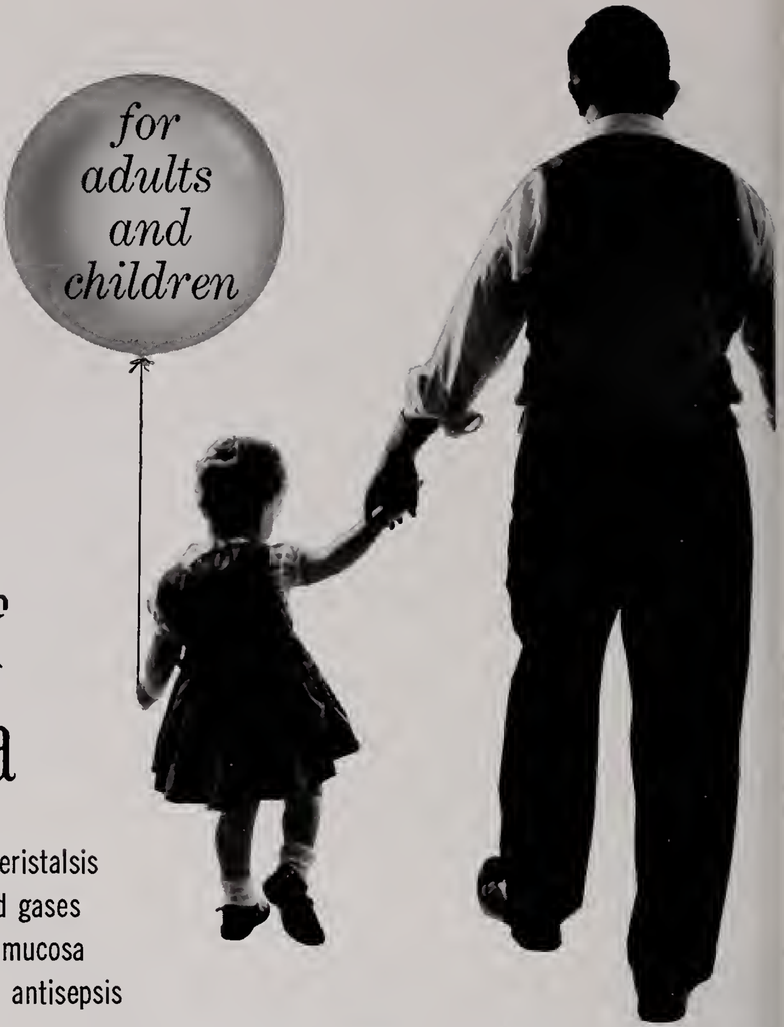

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MEDICAL ANNALS
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VOLUME XXVII *August*, 1958 NUMBER 8

CHRONIC COR PULMONALE*

Part I

A. J. HEISEN, M.D., F.A.C.P.
Imlaystown, New Jersey

Definition

AT THE OUTSET one must define cor pulmonale, because, as Brill[1] pointed out, "there is a conspicuous lack of agreement as to the lesions or clinical conditions which should be included in the term, 'cor pulmonale.' " Fishman and Richards[2] apply the term to a heart that manifests dilatation, hypertrophy or failure of the right ventricle secondary to intrinsic disease of the lung. The cardiac enlargement and failure are confined to the right heart. Their definition of cor pulmonale definitely excludes hypertrophy, dilatation or failure of the right ventricle secondary to disease of the left heart, e.g., mitral stenosis.

Griffith[3] includes the right ventricular changes of mitral stenosis in the general category of cor pulmonale. He further makes a distinction between "primary" cor pulmonale, "in which the basic pulmonary hypertension is the basic lesion," and "secondary" cor pulmonale, "in which the basic lesion has not been in the pulmonary circuit, but beyond, in the left side of the heart."

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Definition
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Pathogenesis and pathophysiology
Major forms of chronic pulmonary disease which may lead to cor pulmonale
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    Radiation fibrosis
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    Scleroderma
    Dermatomyositis
    Tuberculosis
    Berylliosis
  Chronic massive pulmonary artery thrombosis
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  Pulmonary arteriosclerosis
  Vascular anomalies
  Sickle cell anemia
  Kyphoscoliosis
  Primary pulmonary hypertension
  Obesity
  Schistosomal heart disease
Diagnosis and differential diagnosis
Treatment

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* Editor's note: This monograph is a thesis prepared by the author for advancement to Fellowship in the American College of Physicians. This is the first of four parts. Part II will appear in the September issue of the Medical Annals.

Hecht[4] states that it has become obvious that this term covers a number of unrelated conditions that have little in common beyond the fact that right ventricular failure occurs. "It is, therefore, not surprising that a short definition of the term, cor pulmonale, meets with difficulties."

Oram[5] defines cor pulmonale as "hypertrophy and eventual failure of the right ventricle resulting from diseases of the lungs, or disorder of the pulmonary circulation." This excludes congenital cardiac lesions.

Brill[1] concludes that the difficulty in arriving at a concise definition of cor pulmonale lies in the fact that the type of heart disease covered by the term may occur in a large variety of unrelated clinical and pathologic conditions. However, when it is made clear that all these "unrelated" conditions have one thing in common, a disturbed pulmonary circulation, the difficulty disappears and cor pulmonale may then be defined simply as right ventricular hypertrophy, strain, or failure due to a disordered pulmonary circulation. "Pulmonary heart disease," "emphysema heart," and "pulmonary hypertensive heart disease" often used as synonyms of cor pulmonale are less generic in their connotation. Each of these terms refers to a more or less specific etiology for the right ventricular lesion, whereas "cor pulmonale" includes all these as well as other varieties of isolated right ventricular hypertrophy due either to pulmonary or extrapulmonary factors.

INCIDENCE

Here again one finds a great variance of opinion. This is to be expected since definitions vary so widely, some being very inclusive, others quite exclusive. Scott and Garvin[6] reported an incidence of 6.3 per cent among 890 cardiacs of all types. On the other hand, Flint[7] found an incidence of 25 per cent among 300 patients with heart failure. Walzer and Frost[8] studied 106 patients with heart disease at autopsy and found 54 of these to have pathologic evidence of cor pulmonale (right ventricular hypertrophy, no intrinsic heart disease, and presence of sufficient pulmonary disease). Fishman and Richards[2] state that, because of the high prevalence of diffuse lung disease, cor pulmonale is not an uncommon type of heart disease since right heart strain and failure are generally late developments in the natural history of lung disease. They emphasize that the majority of patients with chronic pulmonary disease pursue their course without manifesting circulatory impairment.

Rappaport and Mayer[9] recently wrote that an outstanding new aspect of chronic pulmonary disease is the present rising mortality from cor pulmonale, now chiefly attributed to chronic bronchitis and emphysema. Current experience indicates also a rising incidence of the latter and a change in the etiology of both. This present increase of bronchitis and emphysema comes from two new sources, namely, pulmonary damage from infectious diseases attenuated by modern chemotherapy and pulmonary damage from the effects of increased air pollution.

ETIOLOGY

The following outline will serve best to present the many etiologic factors.

I. Anatomic Alterations of the Thoracic Cage (Defects of the Bellows)
  A. Kyphoscoliosis
  B. Thoracoplasty
  C. Polycythemia of obesity
  D. Amyotrophic lateral sclerosis
  E. Extensive calcification of the pleura
II. Anatomic Alterations of the Pulmonary Vascular System
  A. Main pulmonary arteries
    1. Intrinsic disease of the large pulmonary arteries, such as gummatous or cicatrical pulmonary arteritis
    2. Pressure on the large pulmonary vessels such as aneurysm arising from the base of the aorta
  B. Pulmonary arterioles

    1. Primary pulmonary arteriosclerosis: endarteritis obliterans (Ayerza's disease)
    2. Schistosomiasis of the pulmonary vessels
    3. Chronic pulmonary embolization with infarction, including sickle cell anemia

III. Anatomic Alterations of the Pulmonary Parenchyma
  A. Primary pulmonary emphysema with or without fibrosis
  B. Primary pulmonary disease with secondary emphysema and fibrosis
    1. Pulmonary tuberculosis
    2. Pneumoconiosis
      a. Chronic silicosis
      b. Anthracosis (coal workers' pneumonia)
      c. Byssinosis
    3. Bronchiectasis
    4. Bronchial asthma
    5. Acute interstitial fibrosis
    6. Multiple cysts of the lung
    7. Calcinosis of the lung
    8. Radiation fibrosis
    9. Alveolar-capillary block
      a. Rheumatic pneumonitis
      b. Sarcoidosis
      c. Scleroderma
      d. Dermatomyositis
      e. Silicosis
      f. Miliary tuberculosis
      g. Chronic interstitial pneumonitis (Hamman-Rich syndrome)
      h. Berylliosis

IV. Syndrome of Alveolar Hypoventilation.

PATHOGENESIS AND PATHOPHYSIOLOGY

Comments on pathogenesis of cor pulmonale are presented by Fishman and Richards[2] as follows: The common denominator in the evolution of cor pulmonale, since there is no intrinsic underlying heart disease, is an increase in the work of the right heart. More specifically, the increased work is generally due to an increase in pressure-work, manifested by pulmonary hypertension. In some instances, especially in chronic pulmonary emphysema, the augmented pressure-work may be associated with an increase in volume-work, due to an increase in cardiac output.

Restriction and decreased distensibility of the pulmonary vascular bed, leading to increased resistance to blood flow, is a much more important cause of pulmonary hypertension than is increase in blood flow. Anatomic restriction of the vascular bed may be accomplished by a variety of different pathologic alterations. Thus a critical reduction in the extent of the pulmonary vascular bed can occur from diminution in total lung tissue, from extensive decrease in the pulmonary capillary bed, from arteriosclerotic narrowing and medial hypertrophy, with thickening and constriction of smaller pulmonary arteries and arterioles, and from multiple pulmonary emboli, or thrombosis. Rarely, obstruction of the pulmonary veins, incident to displacement and kinking, or to mediastinitis, may cause pulmonary hypertension by augmenting resistance to blood flow while concomitantly increasing pulmonary blood volume and thereby decreasing pulmonary vascular distensibility. Extravascular compression (case of Winter[10]) and loss of elasticity from surrounding parenchymal disease are additional factors which may increase pulmonary vascular resistance.

In the normal individual the pulmonary circulation is a highly distensible, low pressure system. A cardiac output of 5 to 6 liters per minute at rest is accommodated with pulmonary arterial pressures of 20 to 28 mm. Hg in systole, and 8 to 12 mm. Hg in diastole; increases up to 3 times this blood flow, as occurs during moderate exercise, are associated with a rise in pulmonary arterial pressures of only a few mm. Hg. Normal pressure-flow relations can continue at rest with as little as one-third of normal functioning lung. Indeed, even patients who have had a pneumonectomy can accommodate a 2- or 3-fold increment in pulmonary blood flow with only a minimal increase in pulmonary artery pressures, as long as the remaining lung is free of fibrosis, emphysema, or pulmonary vascular change.

In patients with obstructive disease of the bronchi, generally associated with progressive obliteration of alveolar-capillary surface by inflammation, atrophy, and scarring, the normal balance between alveolar ventilation and perfusion may become disrupted to a degree sufficient to cause systemic arterial hypoxemia. Systemic arterial hypoxemia elicits, in turn, a train of events including polycythemia and hypervolemia, augmented pulmonary blood flow, and possibly pulmonary vasoconstriction, all contributing to the increase in pulmonary hypertension.

In patients with chronic obstructive emphysema, with markedly defective aeration of alveolar spaces, inadequate "pulmonary emptying" and progressive disruption of normal alveolar ventilation-perfusion relations, arterial hypoxemia is eventually accompanied by some degree of carbon dioxide retention. It is particularly in this group with carbon dioxide retention that severe chronic congestive heart failure occurs; the congestive state is characteristically associated with severe hypoxemia, hypercapnia, hypervolemia, polycythemia, and increased cardiac output (Ayerza's syndrome). It is not known to what extent the chronic increase in the carbon dioxide levels in blood and tissues contributes to the cardiac burden.

As pulmonary vascular resistance increases due to progression of parenchymal or vascular disease, pulmonary hypertension becomes manifest during periods of increased pulmonary blood flow, e.g., exercise. In time, pulmonary hypertension may even be present at rest. However, although the existence of pulmonary hypertension may be suspected, it cannot be proved clinically. Furthermore, evidences of cor pulmonale generally do not appear until pulmonary artery pressure exceeds twice normal.[2]

In this early clinical stage, cardiac catheterization has demonstrated that the heart maintains a normal output at rest, with a normal increment in flow during exercise. A first evidence of right heart "strain" during exercise is an increase in right ventricular end-diastolic (filling) pressure up to 7 to 10 mm. Hg, a reflection of the beginning of inadequate ventricular emptying.

With further increase in pulmonary vascular resistance, especially if there is concomitant hypoxemia and hypervolemia, the signs become more overt, and failure of right ventricular emptying occurs, with cardiac dilatation, increased venous pressure, and peripheral edema. At this stage, pulmonary artery pressures are high, reaching systolic pressure levels of 70 to 90 mm. Hg and diastolic pressure of 30 to 50 mm. Hg.

The congestive state in the right heart failure of cor pulmonale may differ dynamically from that observed in the heart failure of intrinsic heart disease by virtue of a tendency toward increase rather than decrease in cardiac output. This tendency toward augmented resting cardiac output in the face of severe right heart failure reaches its peak in the types of cor pulmonale with "Ayerza's syndrome," i.e., congestive state in association with hypoxemia and polycythemia. It may be less marked, or even absent, late in the course of "Ayerza's syndrome" as well as throughout the entire development of other forms of cor pulmonale. Although the increased cardiac output may be, in part, stimulated by hypoxemia, it is to a greater extent induced by the overfilling of the heart and vascular bed by excessive hypervolemia. It, therefore, emerges as a direct "Starling" effect, similar to that produced in the normal circulation by large intravenous infusions. Correspondingly, a reduction in blood volume in patients with the "Ayerza's syndrome" is regularly followed by a fall in cardiac output toward normal.[2]

Luchsinger et al[11] very recently put forth a well documented and emphatically stated brief for the pulmonary vascular component in the pathogenesis of cor pulmonale. They think that increased pulmonary arteriolar resistance is the common denominator in all conditions leading to cor pulmonale. They divide such increases in resistance into 2 categories with respect to etiology, those which are "functional" and reversible and those which are "organic" and irreversible. "The functional form is a consequence of alveolar hypoventilation such as may be produced by abnormalities operating in states such as emphysema, bronchial asthma, kyphoscoliosis, and paralysis of the respiratory muscles (myasthenia gravis, poliomyelitis). The resultant hypoventilation leads to a reduction of the alveolar oxygen tension and an elevation of the alveolar carbon dioxide tension. In turn, these aberrations initiate mechanisms whereby pulmonary vascular resistance is increased and pulmonary hypertension ensues . . . . The organic form of increased pulmonary "arteriolar" resistance is the result of marked decrease in the cross-sectional area of the pulmonary capillary bed. This may follow extensive pulmonary resection or substantial reduction in the functioning vascular area consequent to multiple pulmonary emboli, tuberculosis, sarcoidosis, Hamman-Rich syndrome, silicosis and berylliosis. In these states, despite normal ventilation, organic restriction of the pulmonary vascular bed results in an increased and fixed pulmonary resistance.

THE HEART IN THE PATHOGENESIS OF COR PULMONALE

Increased pulmonary vascular resistance and pulmonary hypertension cause cor pulmonale by increasing the strain and work of the right ventricle. A progressive increase in pulmonary vascular resistance is compensated by a gradual, usually clinically imperceptible dilatation and hypertrophy of the right ventricle. Heart failure may be due chiefly to the strain imposed by increased pulmonary resistance, but in some cases arterial hypoxemia may contribute to heart failure by causing myocardial anoxia.

The characteristic feature of the heart in cor pulmonale is hypertrophy of the right ventricle. There is usually a variable degree of dilatation of the right ventricle. Most pathologists agree that the right ventricle is enlarged if its average thickness exceeds 5 mm. Kirch[12] found that the hypertrophy began in the outflow tract of the right ventricle, i.e., the anterior half of the chamber extending from the apex to the pulmonary arteries.

MAJOR FORMS OF CHRONIC PULMONARY DISEASE WHICH MAY LEAD TO COR PULMONALE

EMPHYSEMA (ASTHMA, BRONCHITIS, BRONCHIECTASIS)

Emphysema is considered the chief cause of cor pulmonale. It is beyond the scope of this paper to discuss all the important aspects of emphysema, its types, causes, pathogenesis, pathophysiology, symptoms, and treatment. Rather, this paper will be limited to the concept of "emphysema heart," but in some detail.

Ebert[13] recently published a concise summary of this subject and summarized by saying that "heart failure complicating pulmonary emphysema is becoming an increasingly frequent problem." It is important to recognize this clinical entity because the treatment differs from that of heart failure of other etiology. Right ventricular failure in emphysema is related to the development of pulmonary hypertension. This, in turn, is correlated with the severity of hypoxia.

Harvey, Ferrer and Cournand[14] discuss the pathophysiology of emphysema in 3 facets: (1) There is gross impedance to air flow in and out of the lungs; (2) the air is unevenly distributed to the alveoli, and (3) the blood returning to the lungs is similarly unevenly distributed to the alveoli. The inadequate air flow is caused not only by loss of elasticity of the lung tissue but also by bronchiolar spasm and mucosal edema and by obstruction resulting from secretions and exudates.

The majority of patients with emphysema, however, do not present only simple ventilatory insufficiency but at some time in their disease more severe ventilatory dysfunction, which, coupled with gross disturbance in distribution of air and blood to the alveoli, leads to alterations in gas exchange, with resulting anoxia and hypercapnia. In some individuals anoxia, with or without hypercapnia, is seen only with acute pulmonary infections and subsides with the alleviation of the infection. In others the disease process itself is more advanced or is associated with frequent and severe attacks of bronchial spasm, hence anoxia and hypercapnia of varying degree are constantly present. It is when anoxia and hypercapnia become a dominant feature of emphysema that the circulatory complications may appear, i.e., pulmonary hypertension and hypervolemia with polycythemia and right heart failure.

Further views on the pathophysiology of emphysema heart may be gleaned from Ebert's review.[13] He says the essential defect in emphysema is alteration in the elastic properties of the lungs associated with bronchiolar obstruction. Accompanying this condition are changes in the lung compartments and a diminution in the maximum rate of expiratory air flow. The residual volume of the lung is regularly increased, the vital capacity is reduced, and the total lung capacity is normal or increased. The impairment in the rate of expiratory air flow results in a decreased maximum breathing capacity and a decrease in the ratio of 1 second to total vital capacity. These alterations in ventilatory function are intimately related to the sensation of dyspnea which is the major clinical manifestation of the disease.

Patients with a mild to moderate degree of emphysema may exhibit no change in the blood gases. Hypoxia and hypercapnia commonly develop in the later stage of the disease. The decrease in the oxygen saturation and increase in the carbon dioxide tension of the arterial blood are related to uneven alveolar ventilation and unequal perfusion of alveoli with blood. Some alveoli are poorly ventilated and others well ventilated. This can be demonstrated by the abnormal way gases mix with air in the lungs. There is also evidence that some alveoli are inadequately supplied with blood, a condition resulting in impaired exchange of gas in these alveoli. Increase in carbon dioxide tension in the blood is compensated by a decrease in the chloride and an increase in the buffer base and bicarbonate content of the blood. As a result the blood pH remains normal, or perhaps is slightly decreased.

There has been some controversy regarding the cardiac output in patients with emphysema. Early studies suggested that the cardiac output was increased in most of these patients. More recent studies describe the cardiac output as normal or slightly decreased. Patients with emphysema and heart failure have a higher cardiac output than patients with heart failure on the basis of hypertension or valvular disease. It is significant that an increase in blood volume has been found in patients with pulmonary emphysema and cor pulmonale. The increase is chiefly in the red blood cell volume. In some instances a large increase in hematocrit reading may occur and contribute to the pulmonary hypertension by increasing the viscosity of the blood.[13]

Richards and Fishman[15] state that the circulatory changes which may develop in chronic pulmonary emphysema stem from 3 distinct but interrelated alterations: (1) a decrease in pulmonary parenchymal elasticity caused by the chronic inflammatory, atrophic, or fibrotic process, (2) a restriction of the pulmonary vascular bed caused by a combined decrease in distensibility and in cross-sectional area of the pulmonary blood vessels, these alterations in distensibility and capacity stemming from pathologic changes in the perivascular supporting structures, as well as of the vessels proper, and (3) obstruction to air flow by stenosis and exudates.

Which patient with chronic emphysema may be expected to develop pulmonary hypertension and cor pulmonale? The subject with nonobstructive emphysema who simply has lost pulmonary elasticity due to atrophic changes will not develop significant hemodynamic alterations. Similarly, the mere restriction of segments of the capacious pulmonary vascular bed by inflammation and scarring in a patient with obstructive emphysema is generally inadequate to elicit pulmonary hypertension prerequisite to development of cor pulmonale. On the other hand, it is the combination of (a) diffuse pulmonary involvement causing ventilatory insufficiency and (b) disturbances in gas exchange—hypoxia and hypercapnea—which is generally responsible for the evolution of chronic cor pulmonale, although secondary development of pulmonary arteriosclerosis is sometimes a significant added factor.[15]

The usual history of the patient with emphysema and right heart failure is one of progressive dyspnea and cough of several years' duration. Recent exacerbation of these symptoms, often secondary to an acute respiratory infection, together with edema of the legs, is often the presenting complaint. The patient is dyspneic at rest and is commonly most comfortable in the sitting position. Cyanosis is present and may be severe. The neck veins are often distended when the patient is in the sitting position. Cardiac enlargement usually cannot be detected because of the hyperresonance of the chest. The liver is enlarged, and edema is present. Signs of hydrothorax may be found.

The determination of the presence of right heart failure in a patient with severe emphysema may not be simple. Patients with emphysema may develop edema of the legs in the absence of right heart failure, particularly if the legs remain in a dependent position for long periods of time. The liver is displaced downward by the low diaphragm and therefore can readily be felt. The best criterion of right heart failure is elevation of right ventricular diastolic pressure, which is reflected by an elevation in systemic venous pressure. Roentgenologic signs of enlargement of the right chambers of the heart are useful evidence of failure. Because of the frequent vertical position of the heart such a change may be difficult to evaluate in a plain PA-roentgenogram. Serial films may demonstrate significant alteration in heart size, and the electrocardiogram may reveal evidence of right ventricular hypertrophy.[13]

PULMONARY FIBROSIS

In their discussion of pulmonary fibrosis Wright and Filley[16] used the term in its generic sense, connoting the proliferation of any or all of the components of fibrous connective tissue. It is a concomitant or sequel to most of the diseases of the lung, and, depending upon its location, amount and histologic character, the fibrosis may or may not influence the nature and magnitude of associated physiologic alterations. Since proliferation of connective tissue is such a dominant part of many pulmonary diseases, one is justified in attempting to disclose its relationship to coëxisting physiologic alterations in spite of the ambiguous nature of the problem.

Because fibrosis is usually accompanied by one or more other lung tissue reactions such as inflammation, edema, exudation, secretion, vascular engorgement and bronchial muscle spasm, each of which is capable of influencing pulmonary function, it is difficult to distinguish the effects of fibrosis per se.

After careful study of 9 patients with various forms of pulmonary fibrosis Wright and Filley[16] concluded as follows:

1. Fibrosis, even though extensive, may fail to cause any measurable evidence of altered respiratory function.

2. Fibrosis may alter pulmonary function by (a) destroying or replacing tissue; (b) restricting movement of the respiratory apparatus; (c) impeding the flow of air through the bronchial passages; (d) impairing alveolar rinsing by reason of (b) or (c); (e) impeding the passage of O_2 and perhaps CO_2 across the barrier that

separates the gas from the blood phase of the alveoli, and (f) causing abnormal patterns of breathing by reason of stimuli which arise directly from within the tissues of the diseased respiratory apparatus.

3. Reduction of maximum breathing capacity, abnormal patterns of respiration, and alterations of the arterial blood gases are the common manifestations of altered respiratory functions associated with fibrosis of the respiratory system.

4. From the standpoint of its influence on pulmonary function, fibrosis is relatively benign unless the physiologic alterations that characterize diffuse obstructive emphysema develop.

5. The effectiveness with which pulmonary artery blood is shunted away from diseased and improperly functioning alveoli and channeled through properly functioning ones, thus preventing serious underventilation of the venous blood, is an important phenomenon that has been inadequately appreciated.

Harvey et al[17] presented these important observations on emphysema, silicosis with emphysema, and fibrosis:

1. In chronic pulmonary emphysema anoxia is the important abnormality, since it is directly or indirectly responsible for the circulatory complications found. It would appear that in patients with chronic cor pulmonale and emphysema cardiac failure is generally characterized by a high cardiac output.

2. In patients with silicosis and emphysema the pulmonary hypertension is less likely to be reversible, since it stems from anatomic alterations in the pulmonary vascular bed rather than anoxia. When chronic cor pulmonale and cardiac failure develop in this type of patient, the cardiac output is not elevated. This emphasizes the point that chronic cor pulmonale in failure is not always of the high output type.

3. The circulatory changes found in the patients with diffusion fibrosis do not appear to be related to anoxia but probably spring from the anatomic lesions produced by the disease processes themselves.

Several years later Harvey et al[17] wrote that the problem of right heart involvement in pulmonary fibrosis lends itself much less readily to analysis than it does in emphysema because very little, as yet, is known about the frequency, nature and pathogenesis of circulatory complications in these disease processes from a clinicophysiologic point of view. This is particularly true of silicosis, the commonest form of fibrosis producing heart failure, in which very little data are available concerning the pulmonary circulation, cardiac output, and blood volume. It should be emphasized that the location and distribution of anatomic lesions in all the various forms of pulmonary fibrosis determine in large measure the degree of circulatory involvement to be expected.

In silicosis it has been known that the pulmonary dysfunction may remain one of ventilatory insufficiency without arterial anoxia for long periods of time. Anoxia is seldom severe in silicosis unless the disease is far advanced or unless there coëxists with the pneumoconiosis its frequent complication, chronic obstructive emphysema.

Hamman-Rich syndrome. In 1935 the late Louis Hamman and A. R. Rich[18] described 4 cases of an unusual, fulminating diffuse interstitial fibrosis of the lungs, cause unknown. Since then additional cases have been reported, many with a more protracted course.

At the onset the symptoms are often those of chronic bronchitis. After a period varying from months to years, progressively increasing dyspnea, orthopnea and cyanosis appear. Pain in the chest, blood expectoration, and a nonproductive, paroxysmal cough are common.

Examination reveals tachypnea, cyanosis and diffuse, inconstant rales in the chest. Many patients have evidence of chronic cor pulmonale with clubbing of the fingers and secondary polycythemia. Roentgen study shows bilateral reticulations of the lung fields with increased hilar and vascular markings, and there is often right ventricular enlargement.

Rubin and Lubliner[19] list 4 X-ray patterns derived from a study of 54 cases: (1) those with minimal lung findings, some even with "normal" lung fields, (2) those with roentgen findings in keeping with cardiac decompensation, cardiac enlargement always being present, (3) those with roentgen findings in keeping with bronchopneumonia, cardiac enlargement making an early appearance in this group, and (4) those with roentgen findings in keeping with diffuse interstitial fibrosis of the lung.

The course is a progressive one of varying duration, ranging from weeks to years. Death results from intercurrent pulmonary infection or right heart failure.

The Hamman-Rich syndrome was recently reviewed by Paul W. Clough.[20] He stated that by 1954 at least 25 typical cases and about 10 to 20 others which were either incompletely described or which differed more or less significantly from the original description had been reported. He emphasized that although the clinical symptoms and roentgenologic features, at least in the more advanced stages, are fairly characteristic, they do not suffice to exclude other types of fibrosis. Diagnosis depends upon histologic examination.

The physiologic difficulty is not ventilatory but is due to interference with the exchange of gases resulting from disturbances of the pulmonary capillaries by the fibrous tissues in the alveolar walls. The O_2 saturation of the arterial blood falls, even at rest. This is true because the O_2 diffusing capacity is greatly reduced by the thickened alveolar barrier and because of the diminished blood interface, since less blood comes in contact between alveolar air and capillary blood. In some of the more chronic cases secondary polycythemia has developed as well as clubbing of the digits.

Pathologically the lungs have been described in most cases as voluminous, heavy, firm, noncrepitant or subcrepitant, and sinking if placed in water. The pleural surfaces are usually not involved, but they may show fine irregular depressed scars enclosing tiny emphysematous blebs. On cross-section the lungs usually appear dry, firm, and granular, with fine fibrous strands forming a lacy network and giving the lungs a coarse texture. Some cases have shown varying degrees of edema and scattered areas of consolidation (terminal infection). Some have a honeycomb appearance.

The most characteristic feature is detected only on microscopic examination and consists of a marked diffuse generalized thickening of the alveolar walls. In the early and acute stage, as described by Hamman and Rich, there is swelling, edema, and some deposition of fibrin in the alveolar walls, with often a moderate infiltration with mononuclear cells (lymphocytes and plasma cells) and varying numbers of eosinophiles. Neutrophilic leukocytes are sparse or absent, and no bacteria can be demonstrated by stain or culture in uncomplicated cases. Very quickly there occurs an active proliferation of young fibroblasts in the alveolar walls, with abundant deposition of fibrous tissue, which so markedly thickens the walls that they may encroach upon the alveolar spaces.

The epithelial cells lining the alveoli become enlarged, cuboidal, tend to desquamate, and often undergo necrosis. Occasionally they may show marked hyperplasia that may resemble pulmonary adenomatosis. There is more or less outpouring of protein-containing fluid into the alveoli, and, particularly if the cellular lining is desquamated and necrotic, this may form a hyaline membrane (fibrin) lining the walls.

The fibrosis disturbs the relation of the capillaries to the alveolar walls, it interferes with gaseous exchange, and in increasing degree it impedes the circulation in the pulmonary bed and raises pulmonary arterial pressure.

Clough[20] concisely summarizes his presentation by stating that "diffuse interstitial fibrosis of the lungs—Hamman-Rich syndrome—is therefore an uncommon disease of unknown etiology, diagnosed with certainty only by histologic examination, which in its recognizable forms runs an unfavorable course uninfluenced by present methods of treatment. The problems are numerous, interesting and virtually untouched. It is obviously desirable that such cases be recognized in the early stages and that they may be carefully studied and reported as opportunity offers."

Radiation fibrosis. Fibrosis of the lung as a result of X-ray radiation has become a well established clinical entity. This usually is a complication of the X-ray therapy of mammary carcinomas but may also occur with treatment for carcinoma of the lung, carcinoma of the esophagus, and pulmonary lymphoma.

Usually the extent of pulmonary fibrosis following radiation reaction in the lung is not of clinical significance, but occasionally severe pulmonary insufficiency develops. Stone et al[21] reported 5 patients who showed severe disturbances of pulmonary function characterized by "alveolar-capillary block." It seemed reasonable to those authors to relate the individual development of pulmonary fibrosis to the volume of lung exposed, the total depth radiation and, finally, the rapidity with which the total depth radiation is given.

Warren and Spencer[22] believe that the damage begins with injury to the alveolar cells and capillary endothelium with resultant edema, swelling, necrosis, and then proliferation of alveolar epithelium and capillary endothelium. As a result of connective tissue damage fibroblastic proliferation occurs, especially in the alveolar walls. The late reaction was thought to be characterized by a vascular hyaline fibrosis with thickening of alveolar walls and septa.

Treatment of this condition has not been successful. Cortisone and ACTH have not altered the relentless course of the pulmonary insufficiency.

Broch, Moe, and Wehn[23] presented a review of 54 patients with bilateral pulmonary fibrosis of unknown origin and 23 patients with sarcoidosis. Their findings were summarized as follows: Infections, chemical or mechanical irritants and also roentgen ray irradiation may give rise to inflammatory processes resulting in diffuse pulmonary fibrosis. Several systemic diseases such as Boeck's sarcoid, tuberculosis, lymphogranulomatosis, and the so-called diffuse, vascular or collagen diseases may occasionally be associated with pulmonary fibrosis. The roentgenologic appearance of the changes in the lungs may vary greatly both in form and extent and cannot give any clue to the causation of the disease. It is also radiologically impossible to distinguish between Boeck's sarcoid and the other forms of chronic, bilateral pulmonary infiltration. Clinical symptoms may progress even when the roentgenologic findings are stationary. Prognosis is determined by the development of emphysema and vascular changes.

Pneumoconiosis. Silicosis is the commonest cause of chronic cor pulmonale, but as lamented by Wright and Filley and by Harvey et al definitive studies on pathophysiology and hemodynamics are as yet insufficient. Methodology and technic are not yet up to the problem. Furthermore, the fibrosis found in this disease is complicated by secondary infection, tuberculosis, and mucus collections, and, furthermore, control studies are not available in that patients are never found before they develop the fibrosis.

Samuelsson[24] reported the findings in 83 advanced cases of silicosis, in about 70 per cent of which there were signs of cor pulmonale.

An epidemiologic study of silicosis in the United States carried out by Doyle et al[25] showed that in a 4-year period (1949–52) there was an average of 1,200 deaths yearly due to silicosis and about 225 deaths yearly from other kinds of pneumoconiosis (chiefly modifications of silicosis).

The diatomaceous-earth-pneumoconiosis study indicated that noncrystalline forms of silica, as well as cristobalite and tridymite, produce a pneumoconiosis that is not silicosis per se but closely related to it. The predominant opinion of investigators of coal miners' pneumoconiosis is that the small concentrations of crystalline silica to which the worker is exposed have no significance in the etiology of the disease.

Diatomaceous earth derives from the siliceous skeletons of microscopic aquatic plants deposited on the beds of fresh and salt water. The pure mineral is entirely silicon dioxide (free silica). It is chemically identical to quartz silica, but differs in its microscopic physical structure. The earliest report on the disease was on 118 laborers, 86.5 per cent of whom had lung changes of pneumoconiosis (quoted by Abrams[26]). Nothing further appeared in the literature until 1946. By 1952 the disease had become a minor problem.

Abram's conclusions[26] follow: (1) The disease has a high attack rate in those exposed to the dust; (2) the amorphous form of the earth can cause symptomatic lung disease, although not so soon as the processed powders; (3) exposure to processed diatomite results in the disabling disease on the average more rapidly than does exposure to quartz-type silicon dioxide; (4) diatomite pneumoconiosis probably predisposes to tuberculosis and other lung infections such as pneumonia and pneumonitis; and (5) it may occur in industries using diatomaceous earth, as well as those which produce it.

In 1954 Martin[27] noted the reluctance to accept the fact of pulmonary disease related to coal mining, although it has long been known that miners die earlier than the general working population. In simple pneumoconiosis there are widespread accumulations of coal dust in small foci mainly at the bifurcation of the terminal bronchioles and around small blood vessels. They cause little reticular fibrosis in contrast to the abundant collagen fibrosis in silicosis. Simple pneumoconiosis makes the lung vulnerable to the more disabling and progressively fatal massive fibrosis. Some factor other than inhalation of dust, probably an infection, seems necessary to produce severe disease. In progressive fibrosis the lungs contain masses of dense black tissue, varying from about 1 cm. in diameter up to masses occupying an entire lobe. There may be cavities at the center. When these areas of massive fibrosis have caused shrinkage there is often severe emphysema.

Wells[28] reported on necropsies performed on 388 coal workers from the Rhondda and neighboring valleys of the South Wales coal fields. He classified them into 3 groups: simple pneumoconiosis, massive pneumoconiosis, and tuberculosis.

Simple pneumoconiosis rarely gives rise to right heart failure by itself, although the 2 were frequently associated in the presence of other pulmonary disease. In these mixed cases it is doubtful whether the simple pneumoconiosis played a significant part in causing death.

Massive pneumoconiosis often gave rise to right heart failure without another cardiac disease (42 per cent). A further 27 per cent of this group died from heart failure, partly due to other lesions, such as severe coronary arterial disease, cardiac valvular disease and systemic hypertension, but the pneumoconiosis probably contributed materially to the cause of death.

The assessment of cases with tuberculosis was complicated by the coëxistence of lethal tuberculous lesions with heart failure, but 17 per cent of this group were considered to have died from cor pulmonale heart failure.

In 1956 Martin[29] reported on 230 soft coal miners who presented some form of cardiorespiratory symptom. Over half were found to have coal workers' pneumoconiosis. This deposition of coal dust and resulting fibrosis, which can cause disability and even death, is significantly different from classic silicosis.

Pathologically, coal workers' pneumoconiosis occurs in 2 separate but related forms, simple pneumoconiosis and progressive massive fibrosis. In 1 group of 136 autopsies in coal miners with progressive massive fibrosis it was found that 57 had died of cor pulmonale without any other cardiac lesion. In 81 cases of simple pneumoconiosis 4 patients died of cor pulmonale due to dust lesions alone.

Gilson and Kilpatrick[30] discussed coal workers' pneumoconiosis and stated that in the terminal stages of complicated pneumoconiosis cor pulmonale is common and is often precipitated by an attack of pulmonary infection.

(To be continued)

BIBLIOGRAPHY

1. Brill, I. C.: Mod. Concepts Cardiovas. Dis., 1957, **26,** 425.
2. Fishman, A. P., and Richards, D. W.: Am. Heart J., 1956, **52,** 149.
3. Griffith, G. C.: Dis. Chest, 1956, **29,** 258.
4. Hecht, H. H.: Circulation, 1956, **14,** 265.
5. Oram, S.: Practitioner, 1956, **176,** 272.
6. Scott, R. W., and Garvin, C. F.: Am. Heart J., 1941, **22,** 56.
7. Flint, F. J.: Lancet, 1954, **2,** 51.
8. Walzer, I., and Frost, T. T.: Dis. Chest, 1954, **26,** 192.
9. Rappaport, I., and Mayer, E.: J.A.M.A., 1957, **165,** 431.
10. Winter, B.: Am. Heart J., 1958, **55,** 18.
11. Luchsinger, P. C., Moser, K. M., Bühlmann, A., and Rossier, P. H.: Ibid., 1957, **54,** 106.
12. Kirch, E.: Würzb. Abhandl. a. d. Gesambtgeb. d. Med., Leipz., 1925, **22,** 73; Klin. Wchnschr., 1930, **9,** 769 and 817; cited by Friedberg, C. K.: Diseases of the Heart, 2nd ed. Philadelphia: Saunders, 1956, p. 986.
13. Ebert, R. V.: Mod. Concepts Cardiovas. Dis., 1957, **26,** 375.
14. Harvey, R. M., Ferrer, M. I., and Cournand, A.: Circulation, 1953, **7,** 932.
15. Richards, D. W., and Fishman, A. P., in Barach, A. L., and Bickerman, H. A.: Pulmonary Emphysema. Baltimore: Williams & Wilkins, 1956, p. 383.
16. Wright, G. W., and Filley, G. F.: Am. J. Med , 1951, **10,** 642.
17. Harvey, R. M., Ferrer, M. I., Richards, D. W., Jr., and Cournand, A.: Ibid., 1951, **10,** 719.
18. Hamman, L., and Rich, A. R.: Bull. Johns Hopkins Hosp., 1944, **74,** 177.
19. Rubin, E. H., and Lubliner, R.: Medicine, 1957, **36,** 397.
20. Clough, P. W.: Ann. Int. Med., 1954, **40,** 641.
21. Stone, D. J., Schwartz, M. J., and Green, R. A.: Am. J. Med., 1956, **21,** 211.
22. Warren, S., and Spencer, J.: Am. J. Roentgenol., 1940, **43,** 682.
23. Broch, O. J., Moe, T., and Wehn, M.: Acta med. scandinav., 1954, **148,** 189.
24. Samuelsson, S.: Ibid., 1952, **142,** 177.
25. Doyle, H. N., Trasko, V. M., Gafafer, W. M., and Miller, S. E.: A.M.A. Arch. Indust. Health, 1955, **12,** 48.
26. Abrams, H. K.: Am. J. Pub. Health, 1954, **44,** 592.
27. Martin, J. E., Jr.: Ibid., 1954, **44,** 581.
28. Wells, A. L.: Brit. Heart J., 1954, **16,** 74.
29. Martin, J. E., Jr.: J.A.M.A., 1956, **162,** 715.
30. Gilson, J. C., and Kilpatrick, G. S.: Brit. M. J., 1955, **1,** 994.

THE INCIDENCE OF ALLERGIC DISEASE IN A PRISON POPULATION*

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THE TERM "ALLERGY" was added to medical nomenclature by von Pirquet, an Austrian, in 1906, 52 years ago. Allergy denotes an "altered reactivity" or a hypersensitiveness in human beings to substances which in themselves are harmless. The first record of an allergic disease dates back many centuries. King Menes of Egypt met his death through the sting of a wasp or hornet circa 2641 B.C., according to the decipherment of the hieroglyphs inscribed on his tomb.[1]

Inquiry into the causes of hay fever during the early part of the nineteenth century led to significant observations. Especially noteworthy are the findings of Bostock[2] in 1828: "Of those affected with June catarrh or hay fever," he writes, "it is remarkable that all the cases are in the middle or upper classes of society; some indeed of high rank. I have made inquiry at the various dispensaries in London and elsewhere, and I have not heard of a single unequivocal case occurring among the poor." In 1873 Blackley,[3] the father of the cutaneous test, commented as follows: "Hay fever is said to be an aristocratic disease, and there can be no doubt if it is not almost wholly confined to the upper classes of society, it is rarely, if ever, met with but among the educated." George IV of England was a sufferer. Wyman[4] of Boston adds confirmatory evidence that the "educated preponderate" very largely among the victims of hay fever.

In the light of my own experience I can justly state that the present-day prevalence of the disease among artisans testifies to the changing order of our aristocracy with the changing times.

Royalty, aristocracy, learning and culture characterized the allergic of bygone days. A survey of our clinics reveals that no segment of society is now immune to allergic reactions. Accordingly, my contact with the inmates of the penal institutions of the District of Columbia aroused my interest to make a comparative study. This group stands out in sharp contrast with the distinguishing and distinctive traits of allergic subjects as recorded in the early literature. The causes of criminality are multiple, and their possible effect upon the allergic state merited investigation.

A survey of 1,500 prisoners was made on the basis of interrogation to determine the incidence of allergic disease. In a personal interview each prisoner was requested to answer the following 7 questions:

1. Do you have or have you ever had hay fever?
2. Are you a sneezer?
3. Do you have or have you ever had asthma?
4. Do you have or have you ever had hives or any other skin disease?
5. Are there any foods which make you sick?
6. Has any member of your family had or ever had any of the above diseases?
7. Is this your first jail commitment?

A positive answer led to further questioning to substantiate the diagnosis. The enumeration of classical symptoms, the description of skin lesions, the recurring distress of suspected allergenic foods proved helpful in evaluation. When

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occasion demanded the nasal chambers were examined, and frequently auscultation revealed the presence of musical rales in individuals who stated they were asthmatic. This same procedure is followed in our everyday practice.

Table 1 indicates the sex, color, and age groups of the 1,500 prisoners interviewed. It is to be noted that the majority of the inmates range from 30 to 49 years of age and that 61 per cent are Negroes.

Table 2 summarizes the findings. The positive cases are grouped according to age, sex, color, and diagnoses. They number 328, or 21.8 per cent, of the prisoners interviewed. Of these 328 subjects, 181 are Negroes, comprising 55.2 per cent of the allergic population.

TABLE 1

Distribution of Prisoners According to Age, Sex and Color

Age Groups	10–19	20–29	30–39	40–49	50–59	60 and over	Total	Percentage
Males: White	12	69	113	150	121	36	501	33.4
Negro	34	202	235	149	69	17	706	47.
Females: White	5	7	17	28	13	5	75	5.
Negro	3	61	79	57	18	0	218	14.5
Total White	17	76	130	178	134	41	576	38.4
Total Negro	37	263	314	206	87	17	924	61.6
Grand Total	54	339	444	384	221	58	1,500	
Percentage	3.6	22.6	29.6	25.6	14.7	3.8		

TABLE 2

Distribution of Allergic Diseases According to Age, Sex and Color

Age Groups		10–19		20–29		30–39		40–49		50–59		60 and over		Total		
Disease		M	F	M	F	M	F	M	F	M	F	M	F	Total	Grand Total	Per-centage
Hay fever	White			2	0	1		1	2	4				10		
	Negro			6	1	5		2	3	1				18	28	1.8
Vasomotor rhinitis	White			0	0	3	2	2	1	2	1	1	1	13		
	Negro			2	3	2	0	5	0	1	0	0	0	13	26	1.7
Asthma	White			7	1	5	0	13	2	6	0	2	1	37		
	Negro			7	3	6	5	6	1	1	1	0	0	30	67	4.4
Dermatologic allergy	White	1	2	7	2	10	4	11	5	6	1	0		49		
	Negro	2	1	13	6	14	5	6	7	5	1	1		61	110	7.3
Gastrointestinal allergy	White	0		2	1	3	2	4		1				13		
	Negro	2		5	6	6	4	3		1				27	40	2.6
Multiple allergies	White	0		3	0	4	1	8	3	4	0	2		25		
	Negro	2	1	7	3	5	4	3	3	1	3	0		32	57	3.8
Total		7	4	61	26	64	27	64	27	33	7	6	2	328	328	21.8
Grand Total		11		87		91		91		40		8		328	328	21.8

The following tabulation of their allergies in the order of frequency is significant:

	No. of Cases	Percentage of the Grand Total
Dermatologic allergy	110	7.3
Asthma	67	4.4
Multiple allergies	57	3.8
Gastrointestinal allergy	40	2.6
Hay fever	28	1.8
Vasomotor rhinitis	20	1.7

The majority of the cases, 182 in number, belong to the more populous age groups, 30 to 49 years.

The hereditary factor is noteworthy. Of the 235 male positive cases 68, or 28 per cent, give a positive family history of allergy. Of the 93 female positive cases 28, or 30 per cent, give a similar history. Of the 972 male negative cases the family history is positive in 87, or 8.9 per cent, whereas in the 200 female negative cases there is a positive history in 26, or 13 per cent.

The first offenders constitute a group of special interest, as shown as follows:

Sex	Positive Cases	Negative Cases	Total
Male	29	125	154
Female	17	36	53
Total	46	161	207

Accordingly, of the 207 committed to prison for the first time, 46, or 22.2 per cent, were allergic subjects. The difference of 1,293 between the 1,500 inmates studied and the 207 first offenders represents the number of repeaters, or 86.2 per cent.

It will be recalled that in the early literature, hay fever has been associated with the aristocracy and with the learned classes. True to tradition, it appears that the proportion of occupations which require relatively high intellectual standards was greater among the allergic than the nonallergic group of this series. Men and women highly educated, trained in and trained for various callings, were numbered among the prison inmates.

For a correct evaluation of these findings it is important to compare them with those made by investigators in various parts of the United States. Soon after the recognition of allergy as a specialty a survey was made by Cooke and Vander Veer[5] in 1916. These authors concluded that 7 per cent of the population showed evidence of hypersensitiveness. Eight years later, in 1924, Spain and Cooke[6] surveyed 506 medical students, nurses and patients. They found that 3.5 per cent were subject to hay fever or asthma at some time in their lives. Their estimate of the incidence of human hypersensitiveness was approximately 7 per cent, thus confirming the previous estimate of 1916. In 1929 Piness and Miller[7] investigated the incidence of hay fever and asthma in 2 mining communities in Arizona. They found that in the first town of 3,000 population 4.4 per cent were hay fever victims, whereas in the smaller community of 1,000 population 3.0 per cent were afflicted.

In sharp contrast with the findings of the preceding authors are the figures published by Rowe[8] in 1931. Rowe made a study of 400 unselected students and nurses. He reported that 43 per cent presented a family history of allergy, 35 per cent a personal history of probable allergy, and 31 per cent a history of suspected food allergy. The discrepancy between the 7 per cent determination of hypersensitiveness by Cooke, Vander Veer and Spain and the 35 per cent by Rowe demands an explanation. Rowe, an ardent advocate of food allergy, was the first to include it as a criterion of hypersensitiveness. Later, in 1934, Vaughan enlarged the scope of investigation and classified allergies as major and minor. The minor group includes those individuals who manifest symptoms only upon occasional contact with an allergen. Typical asthma or seasonal hay fever are excluded from this category. The symptoms of the minor allergies are intermittent. They can be relieved by avoiding the exciting allergens, such as house dust, cosmetics, fumes and offending foods.

Accordingly, the survey made by Vaughan[9] of an entire community of 508 individuals, located in and around Clover, Virginia, furnishes interesting data. The major allergies comprised 10 per cent of the population and the minor allergies approximately 50 per cent.

As the result of a survey of the freshman class, conducted in 3 successive years at the University of Michigan, Jimenez[10] states: "On the basis of the history of nearly 7,000 entering students we concluded that about 35 per cent belong to the class of sensitized persons."

TABLE 3

Summary of Surveys

Year	Authors	Locality	Number in Survey	Percentage of			
				Hay Fever	Asthma	Major Allergy	Minor Allergy
1916	Cooke and Vander Veer	New York	204			7	
1924	Spain and Cooke	New York	506	3.5	3.5	7	
1930	Piness and Miller	Arizona	3,000	4.4			
	Piness and Miller	Arizona	1,000	3.0			
1931	Rowe	California	400			35	
1934	Vaughan	Virginia	508	5.3	3.3	10.8	48.1
1934	Jimenez	Michigan	7,000			35.0	
1937	Pipes	Louisiana	700	3.57	5.0	13.6	35.8
1938	Service	Colorado Springs	3,141	10.06	3.6	22.6	
1957	Bernton	District of Columbia	1,500	1.8	4.4	11.3	11.7

Pipes[11] in 1937 made a study of a community comparable with that of Vaughan's. The survey covered 700 persons in and about Jackson and Baton Rouge, Louisiana. Included in this number were secondary school children and students at the Louisiana State University. Ninety-five out of the 700 individuals, or 13.6 per cent, had major allergies, whereas 35.8 per cent of the remainder had minor allergies. It is noteworthy that uncomplicated hay fever affected 3.57 per cent as a major allergy and that when associated with other allergies the percentage of hay fever subjects was increased to 8. The asthmatics figured about 5 per cent.

Service[12] in 1939 made a significant contribution. He investigated 1,000 families in Colorado Springs, comprising a total of 3,141 persons. Fifty per cent of the families had 1 or more members with a major allergy. Of the total population, 711, or 22.6 per cent, presented a major allergy; 10.06 per cent were hay fever subjects, and 3.6 per cent were asthmatics. Major allergy was manifested in one-fifth of the community.

Table 3 shows the summary of 9 surveys made from 1916 to 1938 in different sections of the United States, in addition to the present study.

Cooke, Vander Veer, Spain, Jimenez and Rowe, on the one hand, restricted their study to students and nurses, who represent the more privileged members of our society. On the other hand, the observations of Piness, Miller, Pipes and Service embraced typical American communities. It will be enlightening, therefore, to compare these findings as they pertain to the incidence of allergy with those of a prison population. Scattered among the prisoners were some with intelligence and education, but all, whether of high or low estate, were anti-social. Their violation of law and order stamped them as criminals. Their actions betoken a hyposensitiveness to acceptable standards of conduct. The challenging question is whether or not this hyposensitiveness extends to recognized allergens.

A comparative study of the findings should prove revealing. Of the 328 positive cases, 29.2 per cent presented a positive family history. In contrast, Service in his survey of 1,000 families found that 35.7 per cent of the allergic subjects had a positive family history. Of added interest are the investigations of 8 authors, who noted that 40 to 60 per cent of asthmatic adults gave a family history of allergy.

Of our 1,172 negative cases, 9.6 per cent gave a positive family history for allergy. This percentage is almost identical with that of Service's, yet it falls far short of the 19.9 per cent of the nonallergic students at the University of Michigan with a positive family history. Table 3 indicates that the 11.3 percentage of the major allergies of our prisoners is far less than the 35 percentage of Jimenez and less than the 13.6 percentage of Pipes but is comparable with the 10.8 percentage of Vaughan. The percentage of 19.7 of our minor allergies is strikingly low. The figure is approximately one-third that of Pipes' and one-fourth that of Vaughan's. Of our 207 first offenders, there was a total of 46 allergic individuals, or 22.2 per cent, as compared with the 21.8 percentage of the total number of allergies among the 1,500 prisoners.

The percentage of 1.8 of hay fever subjects is one-half of the lowest recorded by the 8 authors. The number of asthmatic subjects is about equal to that determined by the same investigators. The summary of the above comparative study justifies the conclusion that the hereditary factor, the percentage of major and minor allergies, and the incidence of frank hay fever is lower among the prison population investigated than among the population at large.

During the past 20 years, the psychosomatic aspects of allergy have been stressed by many students. Weiss and English[13] in their textbook, "Psychosomatic Medicine," state: "Allergy and psychosomatic medicine have much in common. The allergic population and the neurotic population are so numerous that they must overlap. Therefore, if for no other reason, these diseases exist together in many people." Burden,[14] in a discussion of the role of the psyche in allergic disease, is of the opinion that there is a relationship between neurotic character structure and allergic disorder. "To go a step further," he states, "it has been demonstrated that symptoms similar to those of allergic disorders can occur due to psychic disturbances alone."

The psyche of the criminal has engaged the attention of students of various specialties. The science of criminology represents the culmination of their labors. Consequently, we are enabled to gain some insight into the emotional states and behavior of criminals. Resentment—resentment against society, against an individual, against law-enforcing agencies—is a strong emotional factor. Grief, remorse, a sense of frustration, disappointment, feelings of rejection and dejection conspire to intensify the emotional problems. Under these circumstances, according to the concepts of psychiatrists, an aggravation, if not a creation, of allergic disorders should ensue. Such, however, is not the case, as evidenced in our study. I have interviewed 3 prisoners awaiting the death penalty. Their history of allergy, past or present, was negative.

In a majority of allergic patients clinical symptoms result from the explosive union of antigen with its specific antibody. Dale and his school have shown that this union effects the liberation of histamine from the intracellular to the extracellular spaces. The histamine or a histamine-like substance is responsible for the production of symptoms by direct action upon tissue cells. There is apparently, in our selected group of prisoners, an inhibition of the allergic mechanism. The joint efforts of the allergist and biochemist will be required to demonstrate the fundamental processes whereby allergic reactions are initiated or inhibited. Theirs is the challenge.

SUMMARY

The early literature records the occurrence of the allergic state chiefly among the upper classes of society.

Of 1,500 prisoners interviewed, 328, or 21.8 per cent, gave a positive history of allergy. Dermatologic allergy ranked first with a percentage of 7.3, whereas vasomotor rhinitis had the lowest percentage of 1.7.

Of the 328 positive cases in this series, 29.2 per cent had a positive family history for allergy. In comparison, Service in his survey of 1,000 families found that 35.7 per cent of the allergic subjects gave a positive family history.

The 11.3 percentage of the major allergies of this prison population is less than the 35 percentage observed by Jimenez and the 13.6 percentage noted by Pipes.

The 11.7 percentage of minor allergies is approximately one-third that of Pipe's and one-fourth that of Vaughan's.

The percentage of major and minor allergies and the incidence of frank hay fever are lower among the prison population investigated than among the population at large.

The psychic disturbances of the criminal play a minor role in his allergic reactions.

Acknowledgment: It is my privilege to record my deep appreciation and my thanks to Mr. Donald Clemmer, Director, Department of Corrections of the District of Columbia; to Mr. W. E. Fleming, Superintendent, Work House Division, Department of Corrections, and to the several members of their staffs for their coöperation, which has made this study possible.

BIBLIOGRAPHY

1. Waddell, L. A.: Egyptian Civilization. Its Sumerian Origin and Real Chronology and Sumerian Origin of Egyptian Hieroglyphs. London: Luzac and Co., 1930.
2. Bostock, J.: Med. Chir. Tr. of London, 1828, **14**, 437.
3. Blackley, C. H.: Experimental Researches on the Causes and Nature of Catarrhus Aestivus (Hay-Fever or Hay-Asthma). London: Baillière, 1873.
4. Wyman, M.: Autumnal Catarrh (Hay Fever). New York: Hurd & Houghton, 1872.
5. Cooke, R. A., and Vander Veer, A., Jr.: J. Immunol., Balt., 1916, **1**, 201.
6. Spain, W. C., and Cooke, R. A.: Ibid., 1924, **9**, 521.
7. Piness, G., and Miller, H.: J. Allergy, 1930, **1**, 117.
8. Rowe, A. H.: Food Allergy: Its Manifestations, Diagnosis and Treatment, with a General Discussion of Bronchial Asthma. Philadelphia: Lea, 1931, p. 19.
9. Vaughan, W. T.: J. Allergy, 1934, **5**, 184.
10. Jimenez, B.: J. Michigan M. Soc., 1934, **33**, 310.
11. Pipes, D. M.: South. M. J., 1937, **30**, 1012.
12. Service, W. C.: J.A.M.A., 1939, **112**, 2034.
13. Weiss, E., and English, O. S.: Psychosomatic Medicine: The Clinical Application of Psychopathology to General Medical Problems, 2nd ed. Philadelphia: Saunders, 1949.
14. Burden, S. S.: Ann. Int. Med., 1955, **43**, 1283.

THE USE OF KEMADRIN IN THE TREATMENT OF DRUG-INDUCED PARKINSONISM

Preliminary Report

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THE ATARACTIC drugs in high dosages often produce side-effects. Parkinsonism is one of the many unpleasant side-effects. According to some clinicians it may develop insidiously or within a period of 24 hours. The clinical picture comprises muscular rigidity, with cogwheel phenomenon, slowing of movements, festinating gait, and at times pill-rolling tremor. It is well known that this condition is always reversible and is considered by some workers to be a sign of good progress. Some of the antiparkinsonian agents are known to be helpful in alleviating this condition with variable success. Besides some mild physical limitations and its nuisance value, the parkinsonism did not affect our patients either favorably or unfavorably. It was for the purpose of counteracting this parkinson-like state that we decided to test the effectiveness of Kemadrin* (procyclidine hydrochloride).

The plan of study was to substitute Kemadrin, after a lapse of time, for other antiparkinsonian drugs now being used. We also planned to use Kemadrin initially in the treatment of new cases of drug-induced parkinsonism. Mimeographed data sheets were supplied to 6 services to make recording of data uniform. The recommended plan for the study was as follows: Kemadrin was to be administered for the purposes of this study only to those patients whose development of parkinsonism was attributable to the administration of the neuroleptic drugs, Thorazine and Serpasil. These drugs were extensively used during the period of this study (March and April 1957). In such patients, the antiparkinsonian drugs which were then being given them were to be discontinued (unless in the opinion of the medical staff of the service it was considered medically inadvisable to do so) for a period of 1 week. It was suggested in the beginning of the study that the number of patients placed on Kemadrin should not exceed 10 for any 1 service. At the end of this week during which the patient had not been receiving antiparkinsonian drugs, if such a drug was still indicated the patient was to be placed on Kemadrin. Also, any patients developing parkinsonism for the first time were to be started directly on Kemadrin. It was recommended that they be started with an initial dose of 2.5 mg. t.i.d., increased daily by 2.5 mg. up to a daily dosage of 30 mg. until relief of symptoms was obtained. The patients were supposed to be maintained on the effective dosage for a minimum period of 3 months, or until such time as an antiparkinsonian drug was no longer indicated. The medical and nursing staff were asked to record among other things the following subjective and objective observations: How does the patient feel? How does he think he functions—salivation, rigidity, tremor, gait, posture, agility and endurance of performance, facial mobility and expression, oculogyric crises? A total of 82 patients residing in 6 services of the Hospital were selected for this study, and the following results were obtained:

Service 1: Thirty-eight patients in 11 wards were placed on Kemadrin. One ward stated

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* Kemadrin (procyclidine hydrochloride) for the work described in this paper was supplied by Burroughs Wellcome & Co. (U.S.A.), Inc., Tuckahoe, N. Y.

"not enough exposure to express a fair opinion." Another ward qualified its findings of "no difference noted between Kemadrin and another antiparkinsonian drug" with "used only on 2 patients." The rest of the 9 wards were divided into 5 "better than" and 4 "as good as" another antiparkinsonian drug.

Service 2: This reported that "Kemadrin therapy has been used in some 20 patients from April to August 1957. It has been used in amounts from 2.5 mg. daily to 5 mg. b.i.d. It has replaced the other antiparkinsonian drugs in most cases. We have noted that Kemadrin very nicely controlled the rigidity which is present in many of the patients on tranquilizing drugs. It is not quite as effective an agent against the tremors as some of the other antiparkinsonian drugs, but we have found that the rigidity is much more distressing to the patient and much more of a handicap to him than the tremor, which many times is not present when the patient attempts to use his hands. There have been no toxic manifestations, and we definitely feel that Kemadrin has a place in the control and management of the symptomatic parkinsonism secondary to tranquilizing drugs. It appears to be much more effective than the antiparkinsonian drugs used before."

Service 3: This service treated 12 patients with Kemadrin and noted amelioration of symptoms in all except one. The tremors were, according to the observation of the staff of this service, more easily improved than the rigidity in contradiction with the findings of the previous service. Salivation in 1 patient responded to Kemadrin. Speech disturbance and handwriting improved.

Service 4: From 10 patients placed on Kemadrin, this service reported no change in 1 and improvement in 9, great in 7 and moderate in 2. These patients received from 2.5 mg. t.i.d. to 7.5 mg. t.i.d. The report further stated, "No side-effects (avoiding organic-like confusion seen occasionally with other antiparkinsonian drugs). Works rapidly. Able to use lower dosage." This service was enthusiastic about Kemadrin and the result obtained.

Services 5 and 6: Both reported their findings on 1 case each, as they did not have many patients with symptoms of parkinsonism. Both patients improved. One patient received from 2.5 mg. to 10 mg. daily for 30 days, and "the coarse tremor disappeared but he continued to have fine tremors. Although the drug was discontinued the improvement continued and a month later there was no sign of parkinsonism present." The other patient received 2.5 mg. of Kemadrin t.i.d. for 3 months with complete remission of symptoms, when the drug was discontinued.

To summarize the results given by each of the services, it appears that in general Kemadrin is at least as effective as the other antiparkinsonian drugs in a majority of cases, and in only a few cases it was reported not to be as effective. During the 3 months' course of treatment, in which time these 82 patients received a total of 30,000 doses, there were no toxic manifestations reported. When Kemadrin was administered after the full-blown syndrome had developed, in every instance there was abatement of the symptoms within a few weeks. On the other hand, when the drug was given at the early signs of parkinsonism no further signs developed and the premonitory signs disappeared rapidly. From these results it is our conclusion that Kemadrin has a definite place in the control and management of drug-induced parkinsonism. In many cases it appears to be much more effective than the currently used antiparkinsonian drugs.

ACKNOWLEDGMENT: To the medical and nursing staff of the six services who participated in this study the author wishes to express his indebtedness.

CANCER CONTROL—SOME REASONS FOR FAILURE*

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THIS DISCUSSION will deal primarily with a positive approach to some negative actions, in short, how we can profit from the failure to control cancer in some of our individual patients.

Progress in cancer therapy is generally measured in terms of the success with which we are able to meet the problem of each patient. The well accepted yardstick of evaluation is the so-called 5-year survival rate following treatment. Certainly we can be well guided by the results of such studies, but it is also important for us to look upon the results of cancer therapy not only in terms of statistics but in terms of individual cases. Sometimes more can be gained from the accurate evaluation of an individual case than from the less accurate evaluation of a hundred cases. Therefore, my plan is to review our progress in improving therapy from the results of the study both of large numbers of cases as well as individual ones.

Much thought has been given recently to our present concepts of the nature of this disease which we call cancer, but too much of our thinking has been dominated by the strong influence which pathologists and pathologic-anatomy has had on the teachings and writings on this disease. It is time that we consider other than the pathologic aspects of the cancer problem.

CANCER THERAPY—DEFINITIVE OR SYMPTOMATIC?

Two analogies can serve to illustrate one point of view. First, consider an individual who inadvertently has had a large steel sliver driven under the skin of the thigh. This is a large foreign body, but, because of its shape, it has gotten beneath the skin without producing much in the way of an external opening. This patient, having sought medical care, is taken to a recognized hospital, and under minimal anesthesia the foreign body is easily removed. In the course of a few weeks the entire area has healed, and the only obvious residual is a small scar in the skin. Excluding from consideration any psychologic problems associated with the injury, excluding from consideration the matter of the small scar on the leg, and assuming that recovery has been complete and that the patient has no other abnormality or diseases, this individual certainly could now be classified as normal for his age.

In contrast, consider another individual. In a recent report on the results of partial hepatectomy there is 1 case in which partial hepatectomy was done for a tumor which was found after removal and examination to be a gumma. The patient recovered quite satisfactorily. Disregarding the abdominal incision, the fact that the patient has lost a portion of his liver, and the psychologic aspects of the problem, this man, when fully recovered from his surgery, could not be considered as a normal or healthy individual. Until such time as he receives adequate antisyphilitic therapy he is still ill, and the removal of the gumma has done essentially nothing to control the syphilis except to have removed a palpable mass, which may or may not have been causing him symptoms.

The first case, removal of the foreign body, received definitive treatment. The second case, once the true diagnosis was known, received purely symptomatic care, the surgeon having merely removed a lump, which may or may not have been bothering the patient. Should the removal of a cancerous tumor be considered as definitive or symptomatic?

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If present-day cancer therapy is definitive, once the cancer has been completely removed before it has metastasized, the surgeon will have plucked out a grossly abnormal parasite, and, except for the mechanical or psychologic problems produced by the operation, the patient will again be a normal individual. If this concept is a true one, then the whole cancer problem is related to the tumor itself, or to the mechanical problems which may develop as a result of the growth of that tumor or its removal or destruction. This concept is apt to arise from consideration of the present pathologic classification of the disease, but is that accepted by many or possibly even most surgeons.

More recent thinking suggests that perhaps we should consider present cancer surgery as purely symptomatic. Thus, whatever is responsible for the initial tumor or cancer in the patient is some basic abnormality which has in no way been corrected by the removal of the cancer. Under these circumstances it is reasonable to anticipate that these same factors, continuing to act, will give rise to further pathologic changes unless some specific therapy is directed at removing them, whatever they may be. If, then, present cancer therapy is purely symptomatic, the continued action of these factors or circumstances resulting in the original cancer should or could produce further primary cancers.

Some information is available to support this concept of cancer therapy as being only symptomatic. For example, a woman who has had a breast removed for a cancer localized to that breast has an 8 to 10 per cent chance of developing a new cancer in the opposite breast. It is also worth noting that the incidence of new cancers in the opposite breast of such patients appears to be increasing year by year, a point suggesting that, as more primary breast cancers are successfully controlled for longer periods of time, an increasing incidence of new primaries on the opposite side will become apparent.

These findings apply to cancers arising in other sites. A patient who has had a cancer of the colon removed successfully has between a 7 to 14 per cent chance of developing a new cancer in some other spot within the colon in subsequent years. It has even been found that if the entire colon is removed at the time the original cancer is taken out, totally unsuspected additional cancers will be found in some other portion of the excised colon in 3 per cent of the cases.

A patient who has had an early melanoma successfully removed has a 3,000 times better chance of developing a new melanoma—not a metastasis, but a new primary—than does an individual who has never had a melanoma.

A patient who has had a cancer of the oral cavity successfully controlled has at least a 20 per cent chance of developing a new primary cancer at some other point within the oral cavity. Patients with oral cavity cancer may have as many as 3 separate, distinct, primary cancers in different portions of the oral cavity at the same time.

Such information, together with the commonplace observation that if an individual has had 1 skin cancer he almost certainly is going to have another, indicates that a patient who has had 1 cancer successfully treated frequently will develop a second primary. This new cancer is of a specific type or pattern and most often arises within another portion of the same organ in which the first lesion has occurred. No conclusive evidence exists to suggest that the individual has an increased tendency to cancer in general; but an individual with a given type of cancer has a tendency to develop other very certain specific types of cancer.

This situation probably results from our total inability at present, in most if not all instances, to correct the underlying basic defect, which is a most important part of the cancer problem.

Symptomatic Cancer Therapy

Symptomatic cancer therapy requires methods which differ from those needed for definitive treatment. One method would be to define accurately the area in which subsequent trouble is apt to occur and then excise all such tissue, thus removing the vulnerable target organ. An attempt at this has been the proposal that any woman with a radical mastectomy and a favorable prognosis should have a prophylactic mastectomy on the opposite side. However, in general, this approach will yield only minimal gains, because, for example, it is likely that the same woman, if the breast target organs no longer exist, will develop another cancer at some specific site, such as the uterine fundus, since the latter may well have a more direct relationship to breast cancer than it does to other gynecologic or pelvic cancers. But, though it is very unlikely that much good can obtain by wider removal of target organs, considerable good can be accomplished by realizing which problems are apt to occur in a patient with a given type of cancer and paying particular attention to seeing that such patients get adequate follow-up examinations, which will periodically check the suspected target organs. For example, in the case of breast cancer adequate follow-up examinations should be designed to detect at an early stage the new primary that might develop in the opposite breast. Carefully defined wider excisions of certain target organs and more carefully planned follow-up care of cancer patients can improve symptomatic cancer care.

The best method of handling symptomatic cancer care would be to remove the responsible etiologic agent. For example, a patient with a cancer of the bladder which had been successfully removed might not be adequately treated if this alone were done. If the patient worked in an atmosphere contaminated by aniline dyes but without adequate protection, he should be instructed either to change his occupation or get adequate protection. It certainly would not seem unreasonable that if he has developed 1 bladder cancer from exposure to aniline dyes and continues this exposure, he will develop a second one, or one in his ureter, or kidney or pelvis. Here is a possible way of removing the patient from the responsible agent and actually carrying out definitive preventive treatment of cancer.

Removal of such patients from their previous environment may not keep them from developing other cancers, because the responsible etiologic agent may have already produced irreversible biochemical changes within each individual. Such irreversible changes would not be altered by separating them from the environment at this late stage. Suggestive evidence in another area indicates that this may not always be true. For instance, if heavy cigarette smokers cut down the amount of smoking over a period of time, the incidence of serious disease associated with cigarette smoking decreases. Therefore, at least the possibility exists that our results of cancer therapy can be improved either by removing patients from those etiologic factors which are known (unfortunately there are not too many known), or by making an effort to prevent further exposure to them.

As a side light, it is interesting to consider the possible etiology of some cancers. Suppose a physician in a small community were asked by the board of a new industry within his community, as part of the supervision of health measures in that industry, if a new material which was being manufactured could produce cancer in the employees. Only very limited facilities are available to determine this, even if it were desirable to test a material for its possible ability to produce malignant tumors. Yet, this is a real problem. For example, this country has stockpiled as the best plasma expander available the substance PVP, polyvinoplastic. This substance, which was considered as relatively innocuous, when injected into rodents, resulted in the production of a very high incidence of reticulum-cell sarcomata. Also, polyethylene tubing, orlon, nylon, rayon (materials which are being buried as prosthetics for replacement of various structures and are considered quite innocuous) have been found, more or less by chance, to be agents capable of producing fibrosarcomas when buried in the tissues of rodents. What possible carcinogenic agents could be produced in the petroleum industry is not known. Even our knowledge of the safe dosage of irradiation is so limited that we do not know what effect may be produced by these new radioactive materials which are becoming a part of industry and everyday life.

Thus, the first point I wish to make is that our failure to cure some cancer patients is due to our inability to furnish definitive treatment. The surgical removal or the radiologic destruction of the primary tumor is purely symptomatic and leaves the underlying factors still at work, resulting in the development of a new primary cancer which is just as difficult as the first to control and which, if not controlled, results in a fatality.

This concept is strongly supported by histologic studies of entire organs removed at cancer operations or at autopsy. In many or most instances, in situ cancers are found within the surface epithelium of the organs which are the site of the invasive cancer. These in situ changes are often separated from the primary cancer by large areas of normal-appearing cells. Since it is known that some cancers in situ take 8 to 10 years to become invasive cancer, it would appear that new primary cancers could be anticipated if the patient survives sufficiently long. Such in situ lesions have been demonstrated in skin, oral cavity, esophagus, lung, stomach, colon, vaginal tract, breast—in fact, in just about every organ on which studies have been made. Many "local recurrences" may be new primary cancers.

Remember, however, that not all the systemic factors in a cancer patient need be confined to neoplasia. In a report covering a large series of specific types of cancers, observations other than those related to neoplasia are rarely included. For instance, statements are often made that a patient had a totally unrelated severe hypertension, or mild diabetes, etc. However, perhaps some of these abnormalities are actually a part of the "cancer problem" itself. For instance, a high incidence of phlebitis is associated with cancer of the pancreas. This may be due to the presence of a specific substance in the blood stream of these patients with pancreatic cancer, and this factor could be related to the cause of the individual cancer. Certainly, aortic aneurysm, tabes dorsalis, gumma of the liver are all part of the disease, syphilis. Some of these circulating carcinogens may also have other significant biochemical properties which make them affect other systems, as well as produce the primary malignant cancers.

An interesting example of such a syndrome is that associated with carcinoid tumors of the gastrointestinal tract which have metastasized to the liver. There is liberated from these tumors a substance which produces pulmonary hypertension and actually primary heart lesions. These vascular phenomena are certainly a part of the total picture of this type of cancer.

Also, it may be that the same smoking factor which is associated with lung cancer may be the factor associated with coronary occlusion.

ADEQUATE CANCER CARE

Much thought is now being given to defining what constitutes adequate cancer care. Does cancer care cease when the surgical operation has been accomplished or the irradiation therapy given? Does it cease when the patient has recovered from the operation, or the surgery? Does it cease 1 year later, 2 years later, 5 years later? When does the cancer therapist stop treating a cancer patient who has had his "primary cancer" removed?

Most cancer care in recent years has fallen within the province of either the surgeon or the radiologist. The reaction of both to the total problem has in general been the same, although probably more therapeutic radiologists than surgeons have accepted their full responsibility. In subsequent remarks, the surgeon will be used as the example, although everything stated applies equally well to the therapeutic radiologist.

The patient presenting himself to a member of the medical profession for treatment of cancer is usually somewhat awed and/or frightened by the problem which he must face. In general, the patient feels a sense of relief when he finally finds himself in the hands of that member of the medical profession who is willing to accept and undertake the treatment which may cure him of his cancer. All the physicians encountered prior to this final encounter are of minor importance to the patient. Now, after the surgical treatment has been carried out, especially if it has been done successfully, the patient has a deep sense of gratitude to the surgeon who has possibly cured him of his cancer. This is easy to understand, but what has probably not been too well understood by the medical profession is the great difficulty which is encountered if it becomes necessary to transfer the care of a cancer patient to someone other than the man who apparently successfully performed the operation. The after-care of these people should be part of the operation itself, just as pre- and postnatal care are part of the delivery.

Follow-up examinations following cancer operations are carried out by most surgeons. However, in many or even most instances these examinations are done by him in an effort to evaluate the effectiveness of his own treatment but not as a method of actual treatment of the patient. It has been ingrained into the minds of most surgeons that it is necessary for a man to see his own cases postoperatively in order that he may profit by his mistakes and improve his methods. In terms of cancer patients this type of observation is considered a necessity for a period of 5 years, perhaps because such organizations as the American College of Surgeons spend a great deal of time discussing 5-year end-results. However, such type of observation carried out for the benefit of the surgeon is entirely different from the postoperative follow-up examination carried out for the benefit of the patient. The surgeon must be taught to accept responsibility for the latter type of follow-up care.

The patient's reaction to his postoperative period is a very personal one. The psychiatrist has discovered that the patient has a firm attachment to the surgeon who has cared for him and tends to look to him for guidance and help with every problem that may come along. Many of these problems are minor and not serious. Some are major and quite serious. However, because the surgeon has rescued the patient from possible death, the patient looks to him to solve all of the related problems. Psychiatrists have pointed out that if the patient's allegiance is transferred to someone other than the operating surgeon, the patient often fails to carry out the program which is important for maintaining his subsequent good health. The patient's ideas are very definite as to what he expects from the surgeon, and if his surgeon is to render good care, he must take this into consideration.

FOLLOW-UP CARE

Cancer of the Breast. From a practical point of view, what is adequate follow-up care? Follow-up care for women with successfully treated cancer of the breast can serve as an example. Such women have about a 10 per cent chance of developing a cancer in the opposite breast. Follow-up care, therefore, must include measures for the detection of these new "second" lesions at a time when each is still operable. While instruction of the patient in the art of self-examination can do this, it is still advisable for the surgeon to carry out periodic breast examination at proper intervals. Experience has shown that if breast examinations are carried out at intervals greater than every 3 months, many if not most of the breast cancers detected by the physician at the time of such examinations will be in the advanced stage, with axillary metastases. Therefore, if the examinations are to be properly timed so that the physician's examination is to be most helpful to the patient, they must be made at intervals of every 3 months. These intervals must be continued for an indefinite time, because even after 5 or 10 years a woman with breast cancer may develop further trouble. Therefore, adequate care of breast cancer consists not only of radical mastectomy but periodic examination at 3-month intervals for an indefinite period of time thereafter. Incidentally, at the time of these examinations the local operative area is also gone over, because occasionally, a small localized skin recurrence can be successfully removed if found before it has become attached to the chest wall. If such a program is not carried out and a cancer develops in the opposite breast and is found to be extensive when first discovered, the cause of the failure to cure the second breast cancer must lie with the man who took the responsibility for treating the first cancer but not for the subsequent care of his patient.

Cancer of the Tongue. Adequate follow-up care will vary with each type of cancer. Cancer of the tongue generally remains localized above the clavicle for a long period of time, even if uncontrolled. If only the cancer of the tongue has been removed or treated initially, and if further trouble occurs it will most certainly occur in the head and neck area, either within the oral cavity or in the regional lymph nodes. The natural course of this cancer is such that if it is going to recur in regional lymph nodes it most probably will do so within the first year, or most certainly within the first 2 years. Also, experience has indicated that if the metastases occur they are apt to progress fairly rapidly. Hence, if the detection of such metastases when they are still operable is to be the duty of the operating surgeon, he must examine his patient once a month for the first year and once every 2 months for the second year. If he does not do so, the metastases to neck nodes will probably have extended outside the capsule of the lymph nodes before the patient has realized that the nodes are present.

But this is not all. After the second year it can be assumed that the original tongue lesion will probably not cause further trouble, but such a patient has a 20 per cent chance of developing another primary cancer within the oral cavity. Experience again shows that, if such patients are examined only once a year or once every 6 months, many of the lesions so detected will be advanced by the time they are found, especially if they occur outside the field of direct vision. Therefore, if such second primaries are to be found at an early stage, an adequate examination of the oral cavity, pharynx, larynx, and neck areas must be done at intervals not exceeding once every 3 months for an indefinite time, namely, the balance of the patient's life. If the original operating surgeon does not carry out such a program, failure to control a metastasis or a new primary must be recognized as his responsibility because he has not done so.

Head and Neck Cancer. Adequate follow-up care of head and neck cancer patients is not a difficult problem, but it must be done by someone who is willing to learn and perfect the methods of examination required. Many men in internal medicine and many men in general practice who might see these patients have never taken the time to develop the facility to examine the pharynx and larynx with an indirect mirror and to perfect bimanual palpation of the oral cavity. Actually, many surgeons who operate on these patients have not taken the time to develop these technics; we occasionally find surgeons operating on lesions of the anterior portion of the tongue without having found out that there is a second lesion at the base of the tongue. Therefore, again, any surgeon who wishes to undertake the definitive treatment of this type of cancer must accept as his responsibility any failures to subsequently control new lesions, or metastases or recurrences, if they develop in an interval between examinations and if he, the surgeon, has not properly performed periodic examinations of his patient.

Rectal Cancer. Similar follow-up programs can be outlined for other forms of cancer. Rectal cancer requires examination at least every 6 months by sigmoidoscopy and barium enema studies of the colon. This must continue for an indefinite time, not just for 5 years.

Cancer of the Cervix. Periodic follow-up examinations of patients with cancer of the cervix should include adequate pelvic examination, certainly every month during the first year, every 2 months during the second year, and every 3 months for the balance of the patient's life. In addition to this, cytologic studies of the vaginal tract should be carried out at the time of each examination or at least every 3 months.

Internal Cancers. Internal cancers are more difficult to follow successfully. One new effort has been made to carry this follow-up technic into the field of internal cancer, namely, the "second look" operation. A recurrent cancer within the abdominal cavity can reach sizable proportions before it becomes palpable or produces symptoms. The same cancer if it occurred in the lymph node in the neck would be excised when it is just barely palpable. The suggested way of overcoming this is to reoperate on these patients at periodic intervals. What these intervals should be and how successful will be the results, time alone can tell, but it has already been adequately demonstrated that in certain instances in which the patient will coöperate with this type of procedure, life has been significantly prolonged and possibly some patient's cancer has been controlled after several operations.

The older philosophy of cancer treatment has dealt with the plucking out of this nasty cancerous parasite from the patient, with the feeling that if this has been done completely the job is finished and the operating physician has no further responsibility to his patient. Also, this philosophy suggests that, if the parasite has not been completely plucked out, the operating or treating physician has no further responsibility to salvage that patient by so guiding his observation that there is at least a reasonable possibility of attacking the residual disease before it becomes too extensive for possible "curative therapy." In the past too much time has been spent in treating the cancer in the patient, instead of setting up treatment for the cancer patient.

EARLY CANCER DETECTION

Adequate cancer care requires a knowledge of the clinical pictures of the beginning of cancer. A few examples illustrate the needed concepts. When rectal cancer begins, can it be palpated before it can be seen, or can it be seen before it can be palpated? Answers from many groups of physicians have usually been divided about 50-50. Actually, personal experience always proves unequivocally that early rectal cancer begins as something that cannot be distinguished from a tiny benign rectal polyp, and such an early lesion is present and easily seen long before it can be felt. In most instances the early polyp cannot be felt even when it is known to be there. Therefore, the clinical beginning of rectal cancer is such that unless routine proctoscopies are done, tiny early rectal cancers will not be found. If routine proctoscopy is done, 3 to 6 per cent of patients will be found to have rectal polyps or early rectal cancers. Rectal cancers so early that they can be seen but not felt can usually be cured and can almost universally be treated by just a simple wide excision and the avoidance of an abdominal perineal resection.

In the light of this information certain statements made in the literature are quite wrong. For example, it is correct to state that approximately 50 per cent of the cancers of the large bowel and rectum are within reach of the examining finger. But it is incorrect to state that a digital rectal examination will discover 50 per cent of cancers of the colon and rectum present at the time of examination. All early cancers of the rectum which are not yet palpable certainly cannot be felt, even though they are within reach of the examining finger. Considering these facts, the digital rectal examination is of value in the detection of rectal cancer only in one sense, namely, that if a large lesion is present it will be found. It is therefore difficult to understand why follow-up or even annual physical examinations must not include a routine proctoscopic examination.

Consider a second question relative to early cancer: Can a woman find a lump in her breast before an examining physician can detect it, or can the physician find it before she can realize that there is something there? Again, the replies to such a question are divided; 50 per cent think the woman can find something which the doctor cannot feel and 50 per cent believe the doctor can find something which the woman cannot feel. Actually, both can be true; but realizing that some women can find changes that may not be detectable by the examining physician creates an almost entirely new problem. Certainly if a lump is present in the breast it should be removed, but is it justified for a surgeon to excise a lump which he cannot feel but which the patient thinks is there? If this procedure were carried out widely considerable criticism might be heaped upon some surgeons by tissue committees.

Examples of such problems are numerous. Some years ago a woman from the South presented herself because she thought there was something in her breast. She said she did not seek care in her own home town because she had no faith in her physician, who was also her employer. She had seen too many women come to this physician because of feeling something in a breast. She had seen him first reassure the woman and then 3 months later rush her to the hospital with an obvious breast cancer and record in his notes that the patient would have been so much better off if this cancer had been found a little earlier. Therefore she was going to seek care from a place where she could be sure she would get early detection and treatment. When the surgeon whom she consulted examined her he could feel nothing abnormal in either breast. However, she insisted that what she called the abnormal area be removed. The surgeon, realizing the type of person she was, and her background, reluctantly agreed to do this. He marked out the area in question, excised it, and found a cancer about 3 mm. in diameter. This patient, when examined preoperatively by the house staff of the hospital, was declared to have perfectly normal breasts.

A good number of such cases can be quoted from personal experience. However, although this is how breast cancer can begin, the treatment just described cannot be carried out on every woman who thinks she has trouble. That such early breast cancer can be found, however, must be realized by all who treat the disease.

Similar examples can be found dealing with Paget's disease of the breast with intraductal breast cancer found because of a drop of blood from the nipple.

Fibrosarcomas, which could be palpated only by the patient, or which when palpated were only 3 to 5 mm. in diameter, have been reported.

Parotid tumors less than 5 mm. in diameter have turned out to be adenocarcinoma, adenoid-cystic type.

Adenocarcinomas of the floor of the mouth less than 2 mm. in diameter have been removed.

Cancer of the lower lip has been detected when so small that if ointment was applied liberally it became invisible, only to reappear when the area was allowed to dry.

This problem of the apparent innocuousness of tiny lesions applies to all cancers. But, unless this is realized and appreciated, many of these little things will be shrugged off with the statement, "Oh, I don't know what it is, but it can't be of any importance," a statement which is difficult for the patient to understand and should be difficult for us, as physicians, also to understand. How can a physician be sure that something the nature of which he does not know can be of no importance.

In the past the common concept of tumors and cancers has been one of large growths, preserved in jars, or photographed as very unusual. For instance, a basal-cell cancer, untreated for 25 years, can destroy an eye, all of the nose, and the larger part of the maxilla, and extend into the opposite orbit. But this is an entirely different picture from a beginning basal-cell cancer that looks like an ordinary white-head or tiny inclusion cyst.

This concept of the innocuous appearance of beginning cancer becomes of greatest importance in the follow-up examination of treated cancer patients. Such patients have a greater than normal chance of developing other specific cancers. For example, the most precancerous breast lesion a woman may have is to have had a cancer in the opposite breast. Such women can sometimes find a beginning breast cancer which is impossible for the physician to feel, just as a patient with a controlled cancer of the tongue will note a new fissure in the tongue which, although found to be cancer, will not have appeared to differ materially from other areas of the tongue. Detection of the earliest of cancers has its most fruitful field in the follow-up care of treated cancer patients.

Early cancer is made up of a group of lesions that look like pimples and bumps and are the sort of lesion which many surgeons have no wish to treat. These surgeons are apt either to advise that nothing be done or to delegate the job of removing them to somebody way down the line in the team. Only recently are many surgeons beginning to realize the importance of small lesions.

Conclusion

Certainly, some of the things I have said today may be open to argument. I would be very much interested in your comments. I hope that perhaps I have made you stop, think, and look at the cancer problem in a little different fashion than the way in which you have looked at it before. But if we regard cancer removal as largely symptomatic treatment; if we design our treatment program to include periodic examinations; if in these periodic examinations we pay proper attention to likely sites, not only of recurrences and metastases but of new primaries; if, in doing our initial or follow-up examinations we look for the beginnings of cancers, we should be able to greatly improve our care of the cancer patient.

President's Page

THE THIRD PARTY—ITS IMPLICATIONS

Within the next 10 years it is probable that 90 per cent of our professional fees will be paid by a third party. The trend has been in one direction. The public wants full medical coverage. Saving for the proverbial rainy day of illness is old-fashioned. The present philosophy, sponsored by the Government and aided by installment buying and lending institutions, is to spend to the hilt to aid the Nation's economy.

Our participation in two World Wars had a great impact on the third party in medicine. Millions of young men and women and many of their dependents were treated by military doctors on active duty. With the ending of the wars, service personnel became eligible for care by the Veterans Administration. Thus, the U. S. Government became the biggest third party and a long step was taken toward the socialization of medicine.

During this period, wages and the cost of living were steadily rising; hospital and medical expenses followed suit. Labor unions built up huge welfare funds. Blue Cross and Blue Shield were established, and commercial insurance companies offered various types of health and accident policies.

Time-honored patterns of practice are being encroached upon by organizations offering medical service to the public. Both indemnity programs and service programs have inherent dangers. Their fee schedules may set the general scale for an entire area and interfere with fee-for-service financial arrangements. The danger of a service program is that attempts will be made to contract for services as cheaply as possible and this will result in poor medical care.

At a recent national conference of doctors administering union health plans, and others interested in third party medicine, a majority agreed that patients could receive better care without free choice of physician and hospital. One medical director stated he would never return to free choice of physicians and maintained that in order to continue to provide present liberal medical and hospital benefits, the trust fund would deal only with those physicians and hospitals it considers necessary and essential. In reply, the American Medical Association restated its position that the free choice of physician is a basic guarantee of good medical care and that the medical interests of the union members have been subordinated to the financial interests of the welfare fund.

We must recognize that the third party and the free practice of medicine represent two diametrically opposed philosophies. There must be some compromise of principle on both sides. Satisfactory working relations with a third party require that the patient be given the best possible medical care, that the medical profession receive proper recognition and respect, and that the third party obtain a full measure of service from the physician.

The third party must be imbued with principles of service to patients and the medical profession and never be in a position to dominate. Medical societies must be prepared to exercise discipline over their own members. Patients must recognize that they get only what they pay for in any third party program, even one sponsored by the Government.

James W. Watts

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Editorials

NURSING HOME SURVEY

The response to the recent Nursing Home Survey conducted by the Committee on Public Health reflects both interest and concern on the part of the 231 physicians returning the questionnaire, this number being roughly 10 per cent of the Medical Society membership.

Although final tabulation has not quite been completed, certain deductions can be made from the information at hand.

Specificities of these data should prove most helpful in providing us with a good deal of first-hand observation of many homes, but even more enlightening are the comments, remarks, and suggestions offered by many of the doctors.

It would seem that there is an undeniable general dissatisfaction on the part of the reponding physicians with the current facilities and standards of care in the proprietary nursing homes. Remarks by many indicate conditions which would appear appalling. On the other hand, there is a reflection of considerable understanding on the part of physicians of the broad

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

needs of the chronically ill (which none of the usual types of homes are capable of meeting) and of the major problems of economics (both for patient and nursing-home operators). There is also evidence of reasonable sympathy and understanding of the various other problems with which many of the operators are faced.

It is interesting to note that the nursing homes of the neighboring Maryland area were dealt with more favorably in the physician comments than those in the District of Columbia, and this suggests the beneficial influence of the stronger and more active program conducted by that state in improving standards of care.

It is safe to say that no one feels that proprietary nursing homes furnish the sole answer to the sociologic, economic, and medical problems of chronic illness and the aged. These are complex problems which may require years to unravel. Meanwhile, we must depend to a considerable degree on these proprietary homes to meet the needs of the chronically ill and aged.

It is most apparent from the survey that active steps must be taken to encourage and help the operators improve the type of care they provide. It seems that this can only be done by a very aggressive, dynamic program in which Medical Society, Health Department, and operators alike work together in the development of concrete courses of action designed toward this end. We must elevate the standards of care as befits this Nation's Capital, or, more realistically, to a level which allows us to view with pride the facilities available for the care of these patients. With the survey helping to define the points of inadequacy, the Committee on Public Health will work hard toward seeing that these goals are accomplished.

Clifton R. Gruver, M.D.
Chairman, Committee on Public Health

TO THE VERY END?

The death of an elderly person with a chronic incurable disease has always brought its problems.

Before the era of ambulances and hospitals, most such deaths occurred at home. The routine of the family was much disrupted by the irregular meals, lack of sleep, anxiety, and by time spent in tedious attention to the person of the bedridden invalid. Gradually, as the patient slowly worsened, his needs became less taxing and tranquility settled over the home. Children were hushed or sent away to play; adults tiptoed about. The clergyman and the physician came at intervals, bringing such solace and aid as they could. The outcome, having been accepted as inevitable, became tolerable.

With the passing of tension from the sick room, peace and calm came personally to each member of the family. In their minds this serenity was translated into a trait of character of the dying one. No matter what his previous life may have been, in these last hours he became a person of dignity, the center of a group of loved and loving ones, who observed and reported each uneasy breath. Death was a time of family closeness, a thing of sad but dear memory.

In our more enlightened era the chronically ill elderly one is usually placed in a hospital or nursing home. Every need is cared for by persons skilled in such things. The family is relieved of the strain and exhaustion of those last weeks.

By observing the patient's condition closely each day, the physician is able to recognize each new little development in the illness, and to apply the proper antidote, thus warding off the inevitable for another day or so. In certain situations, special "take charge" teams may be called in, necessarily disturbing the patient with their noisy equipment and the inevitable and painful needles; electrocardiograph, portable X-ray, oxygen tent; samples of blood and urine for laboratory examination; paracentesis, venoclysis, transfusion; catheter tray and enema bucket; sedation and stimulation. The wheels of science keep turning rapidly and noisily; the family is asked to wait outside.

For some patients there are the final heroics of emergency operation, artificial kidney or tracheostomy. For many there are those medical last rites, the intracardiac injection, positive pressure oxygen, or more recently, electroshock of the heart.

Finally death comes as it must to all. Members of the family, brought in at last to view the body, are reassured by the knowledge that everything known to medical science has been done.

Quiet returns to the hospital ward. The careful and necessary attention to those less sick is resumed. The unusual activity of those last few weeks has been transferred to the office of the hospital cashier, where the billing machines, brought to life by those last gestures of futility, click off the cost on the patient's bill.

Perhaps this is all as it should be. Perhaps anything less than aggressive action by the physician is euthanasia by default, and euthanasia is, of course, both contrary to the Hippocratic oath and against the law.

But who is served by prolonging misery a few more days or weeks under such circumstances? Isn't death sometimes natural and normal, welcomed by all concerned as the best relief from suffering and unhappiness? Is it morally right for the physician to act contrary to the wishes of the patient and his family at such a time, fanning the spark of life to the very end?

T. M. P.

MEDICAL ESTHETICS*

The practice of medical esthetics demands that we doctors be gentlemanly in our appearance and in our human relations. Bad manners are never excusable. Dignity, kindness, urbanity, and sincerity are all qualities for the physician to possess. We need graciousness to all comers, courtesy to all types of patients, and the tact to meet difficult situations.

Punctilious attention to good manners is as essential in dealing with patients as with the fellow members of the profession. Occasional brusqueness and preoccupation may be forgiven us, but never indifference or unkindness. An attitude of superiority and patronizing condescension is a serious liability.

Professional groups differ in their practice of the social amenities in their intra-group relations. The theatre has long been recognized as a place where dignity and courtesy are taken for granted among the players on the stage. The loved and distinguished creator of Rip van Winkle was just as much "Mr. Jefferson, a gentleman of the company" in his apprentice period as he was in his later years of maturity and fame.

We would do well to imitate the dignified bearing of the actors. There are times and places for the use of the first name, the college nickname, or other attempts at levity. The consultation room or the patient's bedside, however, is not the place for such manifestations of joviality. Professional gatherings lose atmosphere by such procedures.

It is unfortunate that it is necessary to comment on jealousy. No man is ever jealous of his valet. We are jealous only of our superiors. The remedy for this is to be so vigilant in our efforts for self-improvement that we shall have no time for envy of another's superiority, and at the same time shall by our conscientious efforts be eliminating our defects.

In the battles of life the physically puny take refuge with the physically vigorous. May not the

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* EDITOR'S NOTE: These excerpts from Dr. Laird's book, "The Philosophy of Medicine," are reproduced in the MEDICAL ANNALS through the courtesy of the author and his publisher, Education Foundation, Inc., Charleston, W. Va.

SURVEY OF SOCIETY MEMBERS BY COUNCIL ON REHABILITATION

The restoration of the handicapped and disabled to the maximum usefulness of which they are capable is the goal of every physician, as well as of many community agencies, public and voluntary. The agencies provide a variety of services which individual physicians cannot alone supply, and in meeting needs the agencies complement the role of the practicing physician. However, the strength of a community rehabilitation program rests basically with the practicing physician.

Members of the Medical Society of the District of Columbia are urged to complete the survey form which has been sent to all of us by the Council on Rehabilitation of the Washington Metropolitan Area Medical Societies. If we are to improve services to the handicapped of our own community as well as of the metropolitan area, it is essential that each physician contribute to the effort of our Council on Rehabilitation

JAMES W. WATTS, M.D.
President, The Medical Society of the District of Columbia

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intellectually puny seek the company of the intellectually vigorous and benefit from the association.

Is it asking too much that one who has learned in his training to use instruments with precision and grace, should use the silver at the table in the conventional manner?

The thoughtful individual appreciates the need of a professional and courteous approach to the patient he is interviewing. It is not necessary to comment to such a one on his conducting the interview in shirt sleeves, with shirt worn outside the belt, feet in an elevated position, and pipe or cigarette in action.

Being abusive in dealing with those who cannot talk back in self-defense is a major violation of both ethics and esthetics. If we are dining with a lady pleasingly dressed in white we do not snap at her when asking her to pass the sugar. We have no more right to snap at the lady in white who hands us an instrument at the operating table.

Many people see in our manner toward the nurse, the secretary, the medical technician, or even the orderly or the janitor, a criterion of our breeding and good taste. The indiscriminate use of first names is to be avoided. The proverb, though unpleasant, is true—"Familiarity breeds contempt."

People see another criterion in our manner of dress. None of us would advocate return to the days of the silk hat, cutaway coat, striped trousers, and gold-headed cane, but it is essential that the physician should give some thought to conservative dress, "for the apparel oft proclaims the man." It would be unfortunate if we reached such a state of unconventional dress that when a physician is called back to the hospital for an emergency on the week-end or holiday, he would be indistinguishable from the idle by-standers outside the ambulance entrance.

Our patients do not expect from us the language of the Bowery. A vulgar story violates good taste, and profanity indicates intellectual poverty.

A noteworthy contribution of a physician to esthetics is an attractive home, not ostentatious or unduly costly, but pleasingly designed and well appointed. There is a growing tendency to leave the cities and live in the suburbs. In such surroundings a beautiful home may set a pattern which will influence other people to go and do likewise. Such a home may be simple and its tasteful yard and surroundings far from elaborate. Afternoon tea in such a periphery is a far more satisfying experience than a cocktail party in a noisy apartment house.

Under our system of free education, or rather training, anyone with a bit of initiative and ambition can get a college education and enter one of the professions. If we have come from surroundings where the amenities of living have not been observed, we must painstakingly adapt ourselves to the practice of these amenities. If we are unwilling to do this, we should not have attempted to step into the professional group.

WILLIAM R. LAIRD, M.D.

PROCEEDINGS OF SPECIAL BUSINESS MEETING

A special Business Meeting of the Medical Society of the District of Columbia was held on June 18 to consider particularly the recommendations of the Committee on Medical Care with regard to renegotiating the Medicare Contract, which would expire on July 1, 1958. In the absence of President Watts, Dr. Duane C. Richtmeyer, Acting President, presided. About 54 members were present.

The Chairman called on Dr. C. Willard Camalier, Jr., Chairman of the Committee on Medical Care, to read his Committee's report.

It was recommended by the Committee on Medical Care that the negotiators for the Society in dealing with the Office of Dependents Medical Care of the Department of Defense be directed to extend the Medicare Contract for a period of one year from July 1, 1958, subject to the following recommendations:

"1. That a fee schedule of maximum allowances be negotiated for each listed item in the schedule and for each suggested item incorporated into the schedule of allowances by mutual consent of the negotiators and the Department of Defense.

"2. That strenuous efforts be made to obtain the schedule of allowances submitted by the various components of the Society as representing a fair, just, and usual fee in this community for the services listed.

"3. That in no case except as indicated by the concerned Section or representative group of the Society shall the allowance agreed upon be lower than that now in effect under the present Medicare Contract."

Dr. Herbert P. Ramsey, Chairman of the Executive Board, presented the Interim Report of the Board, which is published following these proceedings.

Dr. Karl C. Corley offered a motion, which was approved, that the Medical Society negotiators be instructed to try to incorporate in the agreement with the Department of Defense a provision for the free choice of physicians by Medicare patients.

Dr. Henry D. Ecker moved that Amendment XLVII be amended by inserting under Section 2 the phrase, "10 days in advance," so the sentence will read: "A copy of the proposed amendments together with the notice shall be mailed to each Active and Life member 10 days in advance of the meeting at which the proposed changes will be voted on."

With this amendment the Board's report as a whole was adopted.

INTERIM REPORT OF THE EXECUTIVE BOARD

This meeting was called primarily for the purpose of considering recommendations of the Committee on Medical Care with respect to the extension of the Medicare Contract. However, as you have noted on the agenda mailed you, there are a few other items of business which require the attention of the Society at this time.

You need hardly be reminded that the business transacted this evening will be limited to that for which the meeting was called. Other business will have to wait until another business meeting.

Recommendations of the Committee on Medical Care re Extension of Agreement and Medicare Fee Schedule. You have had presented to you by Dr. C. Willard Camalier, Jr., Chairman of the Committee on Medical Care, the recommendations of the Committee with respect to the extension of the contract and the adoption of the revised fee schedule. The Board concurs in the recommendations of the Committee and hopes that they meet with your approval.

Election to Honorary Membership of Mr. Paul Foley, Assistant Secretary, D. C. Commission on Licensure, and Deputy Director, D. C. Department of Occupations and Professions. As stated at the last Business Meeting of the Society, held on January 29, 1958, when Mr. Foley was proposed for Honorary membership, he is well known to many physicians in the District of Columbia. For more than 20 years he has been deeply interested in their problems, especially those relating to licensure. Always coöperative where physicians are concerned, he has won their respect and affection.

Mr. Foley has been a resident of the District of Columbia since 1916. He is a graduate of the Columbus University School of Law in Washington, D. C., where he received his LL.B. degree in 1938. He has been Assistant Secretary of the District of Columbia Commission on Licensure since 1935. In 1953 he was appointed Deputy Director of the District of Columbia Department of Occupations and Professions.

The Board is pleased to recommend his election to Honorary membership.

Proposed Election to Honorary Membership of Dr. Charles L. Dunham, Director, Division of Biology and Medicine, Atomic Energy Commission. Few physicians have had such a distinguished career as has Dr. Dunham. Dr. Dunham received his undergraduate training at Yale University and his M.D. degree at Rush Medical College in 1933.

He was instructor and then Assistant Professor of Medicine in charge of the Arthritis Clinic and Hospital Service at Billings Memorial Hospital, University of Chicago, 1946–1949.

Dr. Dunham was made Chief of Preventive Medicine and Medical Inspector for Headquarters Army Forces, Office of the Surgeon, in the Mid-Pacific during World War II.

He joined the U. S. Atomic Energy Commission as Assistant Chief of the Medical Branch, Division of Biology and Medicine, in 1949, becoming Chief of the Branch in 1950, Deputy Director in 1954, and Director in 1955.

He is a member of a number of scientific bodies, including the National Academy of Sciences, National Research Council's Division of Medical Sciences, New York Academy of Sciences, and the American Medical Association.

As required by the Constitution and By-laws, Dr. Dunham's name will be presented for a vote at the next business meeting.

Proposed Election to Honorary Membership of the Following Physician-Congressmen: Ivor D. Fenton, Twelfth District, Pennsylvania; Walter H. Judd, Fifth District, Minnesota; Arthur L. Miller, Fourth District, Nebraska; Thomas E. Morgan, Twenty-sixth District, Pennsylvania; Will E. Neal, Fourth District, West Virginia; and Resident Commissioner A. Fernos-Isern, of Puerto Rico. Too few physicians in these days are attracted to public office. As has been stressed on numerous occasions, it is vitally important that more of them are. All of the above are now serving in the House of Representatives. In addition, they are highly regarded in their respective communities by the medical profession.

The Board does not want to burden you with the details of their careers. In its opinion, it is sufficient that they have been chosen by their constituents to represent them in Congress.

As required by the Constitution and By-laws their names will be presented for a vote at the next business meeting.

Proposed Amendments to the Constitution and By-laws. At the Business Meeting on January 29, 1958, the Society voted to adopt a number of amendments with the understanding that the Constitution and By-laws would be recodified. The recodification has been in progress since that time but it could not be completed without further amendments, of which the first is the following:

AMENDMENT XLVII

Chapter XI, Article I, is hereby amended by striking out the phrase in the third line, "at a previous business meeting."

Article I will then read: "Amendments to the Constitution and By-laws may be adopted by a favorable concurrence of two-thirds of the votes cast at any business meeting after having been proposed in writing and a copy thereof been sent to all Active members with a notice of the meeting at which their adoption is to be voted on."

At its meeting on June 16, 1958 the Board gave further consideration to the above amendment and decided upon a substitute, which reads as follows:

AMENDMENT XLVII

Section 1. Chapter XI, Article I, is hereby repealed.

Section 2. Proposed amendments to the Constitution and By-laws shall be submitted to the Secretary in writing and shall be referred to the Committee on Constitution and By-laws. This committee shall study the proposed changes and submit its recommendations to the Society through the Executive Board. A copy of the proposed amendments shall be mailed to each Active and Life member together with the notice of the meeting at which the proposed changes will be voted on. A majority of two-thirds of those voting at any business meeting shall be necessary for adoption.

A copy of the following amendment was also enclosed to members with the agenda.

AMENDMENT XLVIII

Chapter VIII, Article I, is hereby amended by changing the last sentence to read: "Additional committees may be created by the Executive Board."

The following amendments have also been found necessary to bring the Constitution and By-laws up to date:

AMENDMENT XLIX

Chapter VIII, Article I, is hereby amended by adding the following:

14. Committee on Constitution and By-laws.

Chapter VIII is further amended by adding:

Article XV. The Committee on Constitution and By-laws shall consist of three Active or Life members of this Society. It shall be the duty of this Committee to study all proposed amendments to the Constitution and By-laws and make recommendations to the Society through the Executive Board. This Committee shall see that the proposed amendments are properly worded and that their contents are stated clearly and logically.

AMENDMENT L

Chapter VIII, Article I, is hereby amended by adding the following:

15. Committee on Aging.

Chapter VIII is further amended by adding:

Article XVI. The Committee on Aging shall study the problems of aging and report thereon to the Society through the Executive Board.

In conformity with the provisions of the Constitution and By-laws the above amendments are presented at this meeting and will be voted on at the next business meeting.

Conference with Representatives of District Labor Unions re Broadening Benefits under Medical Service to Provide Comprehensive Coverage. In November 1957 a Labor Council Conference was held at the Hotel Statler. This was attended by representatives of local labor unions, national labor representatives, and by men active in union health clinics or centers in other cities. A representative of the Medical Society was present by personal invitation of one of the labor officials and not as an official representative of the Society.

At this meeting plans were unveiled to establish a union health clinic for the benefit of the union members and their dependents, offering outpatient services and utilizing the services of salaried physicians supplemented by contract doctors or established clinics. The potential number of persons to be covered was about 130,000. Realizing that this would, in effect, establish a closed panel medicine plan with consequent loss of freedom of choice of physician, the situation was thoroughly studied by the Society's Committee on Medical Care.

After much discussion it was felt that the solution to the situation called for aggressive action on the part of the Society in an attempt to offer the coverage desired by the unions with free choice of physician uppermost in any plan developed. It was further felt that working through Medical Service of the District of Columbia was the logical path to follow. Therefore, the Committee recommended to the Executive Board that Medical Service be requested to develop a contract for use of union members, incorporating the desired services and paying realistic fees to physicians. In this the Executive Board concurred and the request was sent to Medical Service.

Since the Union Local #689 of the Transit Workers was spearheading the clinic drive, discussions were opened with their representatives along with the other local representatives of labor. At least 2 members of the Committee on Medical Care have been present at all meetings. There has been free and friendly discussion of this entire subject. No decision of any type has been made in this matter and future discussions are planned in an attempt to see if this problem can be solved to the satisfaction of all concerned. Members of the Committee will continue to attend meetings held between Medical Service and labor representatives, for the answer to this problem lies in joint endeavor by all concerned and no decision will be reached without consultation, advice, and concurrence of the voting membership of the Society.

Conclusion. This concludes the Board's third Interim Report during the current organization year, which, because of the changes in the Constitution and By-laws, is extended until January 1, 1959, when the new administration will take over.

It has been reported to the Board that the program for the 27th ANNUAL SCIENTIFIC ASSEMBLY, to be held at the Hotel Statler on November 24, 25, and 26, 1958, is now complete.

Respectfully submitted,
HERBERT P. RAMSEY, M.D., *Chairman*
RALPH M. CAULK, M.D.
W. LEROY DUNN, M.D.
RAYMOND T. HOLDEN, M.D.
PRESTON A. MCLENDON, M.D.
W. ROSS MORRIS, M.D.
JAMES W. WATTS, M.D.
THEODORE WIPRUD, *Secretary*

SKIN TEST RECOMMENDED FOR INITIAL TB DETECTION

In an official news release of June 26, 1958, issued by the U. S. Department of Health, Education, and Welfare, it was recommended that state and local authorities consider replacing compulsory X-ray programs with the tuberculin skin test as the initial means of detecting tuberculosis among students and school employees where experience has shown a low incidence of cases.

The recommendation was made by the Public Health Service, the Office of Education, and the Children's Bureau. In urging consideration of skin tests in school health programs, they pointed out that chest X-rays could then be limited to those whose skin tests were positive.

The three agencies, all in the Department of Health, Education, and Welfare, some time ago asked their joint Committee on Health of the School Age Child to study tuberculosis case-finding technics in the light of tuberculosis prevalence, the number of new cases found through X-ray programs, and the effects of periodic exposure to low-level radiation.

The Public Health Service some months ago recommended as a general policy that X-ray surveys be conducted on a selective rather than on a mass or community-wide basis.

The Committee urged state and local health authorities to seek changes in laws and regulations which make periodic chest X-ray examinations compulsory, thus paving the way for application of new knowledge and technics.

Tuberculosis case-finding is an important factor in school and college health programs, the Committee pointed out. In the light of changing conditions, however, the value of mass X-ray programs should be weighed against costs and radiation exposure. In making any program changes, state and local education officials were urged to seek professional advice and assistance from state or local health authorities.

The Committee also recommended that where X-ray programs are conducted, the equipment be inspected at regular intervals and adequate safeguards used to protect all persons from unnecessary radiation.

PATIENT REFERRALS OF CURRENT INTEREST AT CLINICAL CENTER

For physicians who may be interested in referring certain patients for study at the Clinical Center of the National Institutes of Health, Bethesda, Maryland, the following information is provided concerning diagnoses that are of particular current interest. This list supplements a more extensive compilation published each year in booklet form.

Letters of referral should include an adequate history and may be addressed to the Director of the Clinical Center for registration and circulation among appropriate clinical groups. A full report of findings will be furnished the referring physician when an accepted patient is discharged back to his care.

The National Cancer Institute has particular interest in patients with the following diagnoses: acute leukemia, any age; Hodgkin's disease without previous therapy; multiple basal cell cancers of the skin; myeloid metaplasia; protein disturbances such as macroglobulinemia, cryoglobulinemia, and idiopathic hypoalbuminemia; cancer of any type in children; choriocarcinoma.

As candidates for radiologic study and treatment patients in the following categories will be considered: invasive carcinoma of the urinary bladder without bony or extrapelvic metastases and without previous external radiation therapy or extravesical surgery; squamous cell carcinoma of the oropharyngeal and laryngeal cavities; carcinoma of the esophagus without evidence of metastases to neck or liver; carcinoma of thyroid; solitary myeloma; chondrosarcoma.

The Allergy and Infectious Diseases Institute has especial current interest in proven or strongly suspected cases of disseminated histoplasmosis. Studies include improved diagnostic methods, new therapeutic agents, and basic immunology.

The National Heart Institute has particular need for patients with hormone-producing malignancies of the adrenal gland for trial of Δ^4-cholestenone, which is an inhibitor of adrenal steroid synthesis. Patients with postoperative recurrences of adrenal malignancy are also considered suitable for trial.

Other conditions of interest to Heart Institute investigators include: malignant hypertension, primary pulmonary hypertension, and cases which though sustained have had no serious cardiac, renal or cerebral complications; angina pectoris clearly associated with coronary artery disease; pheochromocytomes; adrenogenital syndrome.

THE THIRD PARTY—FRIEND OR FOE?*

THEODORE WIPRUD†
Washington

The delicate nature of my subject is self-evident. In many areas of the country controversy between the medical profession and a third party has been bitter and a solution is still not in sight.

It is my purpose in these observations to relate to you some historical facts about the socioeconomic aspects of the third party in medicine with which I am personally familiar and their significance to the medical profession here and elsewhere.

Third Party Defined

First of all, I should like to explore definitions of the third party. One of the outstanding physicians in Pennsylvania, a Past President of the American Medical Association, gave me this definition, which I for one am willing to accept: "Economically, the third party is anyone or any organization that arranges in any way to pay for professional services rendered a patient by his physician."

In gathering material for this presentation I wrote 31 Washington physicians for their definitions and other pertinent information. Several of them called me on the telephone and wanted to know what the third party was. One asked me if it was a new political party. Some went along with the definition already quoted. Others offered some which were quite unique, such as the physician who would include any one of the following as a third party: nurses; laboratory, X-ray, or physical therapy technicians; the parents of a minor; the adult children of an aged and infirm patient, whether appointed guardians or not; the courts (in psychiatric cases); hospitals; insurance carriers; Public Health officials, and many others.

In a recent newspaper release the Blue Shield Commission insisted that its organization was not a third party because it is "of the profession itself." Personally, I do not agree. The fact is that Blue Shield Plans act as intermediaries, collecting dues from subscribers and paying physicians, usually in accordance with a fee schedule.

Lest I be misunderstood, this is not intended as a criticism of Blue Shield. After all, as secretary of one of its Plans I am well aware of the unique relationship which exists between this organization and the medical profession.

So much for definitions. Being primarily concerned with the economic aspects of my subject, I will accept the first-mentioned definition, that a third party is any individual or organization that assumes the responsibility for paying a physician for his services to a patient.

I need hardly remind some of you older physicians that third party medicine has been on the medical scene a long time. It has been the heart of many controversies, within and without the medical profession, for the past 3 decades or more. For better or for worse, it has flourished and become a major factor to be reckoned with by the medical profession.

Why has this growth occurred? There is no simple answer to that question, but a look into the past will give us some clues.

Medical Controversy in the Making

Just a month before the disastrous stock market crash in 1929 I was employed as an executive secretary of a large county medical society in Milwaukee, Wisconsin, which, as you know, is an industrial city. Although I had had 8 years' experience as business manager of a medical clinic, the larger economic problems of medicine were new to me. I soon made some important discoveries.

First, there appeared to be a "revolution" in the making where methods of providing and paying for medical care were concerned. The now historic 5-year study of the Committee on the Costs of Medical Care, headed by Dr. Ray Lyman Wilbur, Past President of the AMA, and underwritten financially by 8 Foundations, had been in progress since early 1928. Several individual studies which would be incorporated in the overall study were being released for publication from time to time.

It soon became evident from the tenor of these reports that the Committee would not be unanimous in its findings. Of the 50 members of the Committee, 17 were physicians engaged in private practice.

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* Presented at the Annual Meeting of the Pennsylvania Academy of General Practice in Pittsburgh, May 24, 1958.

† Executive Director and Secretary of the Medical Society of the District of Columbia; Professorial Lecturer in Medical Economics, Georgetown University School of Medicine.

The others represented Public Health, social sciences, the public, and institutional and special interests.

In the Committee's final report, released in 1932, the majority recommended among other things that "both preventive and therapeutic (services) should be furnished largely by organized groups of physicians, dentists, nurses, pharmacists, and other associated personnel, such groups to be organized preferably around the hospital, for rendering complete home, office, and hospital care," and that "the costs of medical care be placed on a group payment basis through the use of insurance, through the use of taxation, or through the use of both these methods."

The principal minority group, representing the viewpoint of private physicians, on the other hand, recommended that Government competition in the practice of medicine be discontinued, that its activities be restricted to the care of the indigent, promotion of public health, support of medical departments of the armed forces, and the provision of medical care to veterans suffering from bona fide service-connected disabilities and disease. There was pointedly no endorsement of voluntary health insurance, although the development of plans for medical care by medical societies was recommended. There were no suggestions offered as to the kind of plans these should be.

Recommendations of both the majority and the minority groups stirred up heated discussions throughout the country and marked the beginning of a controversy which has continued down to the present time.

If any of you have not read the final report of the Committee on the Costs of Medical Care, you should do so because nearly all the economic issues facing medicine today stem from this document.

There were, at that time, other problems of more immediate concern to physicians in Milwaukee. Agitation had nearly reached a boiling point over contract practice. A large number of physicians in this industrial community had an agreement with some industry, mutual aid society, or fraternal organization. Some of the more agitated physicians who had no contracts insisted that the "rascals" who had them be thrown out of the Medical Society. The situation, which was not peculiar to Milwaukee, finally reached a stage where it seemed that the organization would be split down the middle. Fortunately, the strategy developed by officers of the Medical Society in an effort to heal differences worked.

However, contract practice continued to be an irritation to many physicians, who were very vocal about it. In one instance lodge practice reached such a low ebb as to quality that even the men who had accepted these arrangements quit in disgust.

Physicians engaged in so-called ancillary services were especially pessimistic about the situation. The President of the Milwaukee County Medical Society, for example, wrote an article entitled, "Can the Pathologists Survive?" He raised the question which one still hears today: "What is there to prevent the pathologist's present position being recognized as a precedent for hospitals' employing surgeons and internists in the same manner in which pathologists and roentgenologists are now employed?"

For some years thereafter there were scattered flurries of excitement among the profession over these issues, but finally things settled down to a simmer. The Depression had deepened, and the New Deal was in the ascendancy. Unemployment increased rapidly, with the result that at one time in Milwaukee a substantial part of the population was on relief. Many physicians and their patients, therefore, were in financial straits.

On the initiative of the Medical Society county authorities agreed to pay physicians caring for the medically indigent on a fee basis. It became a far greater undertaking than was anticipated in the beginning and, of course, lasted much longer.

Early in 1933 it became quite apparent to leaders in organized medicine that several signers of the majority report of the Committee on the Costs of Medical Care and their supporters were preparing to implement their recommendations if at all possible. Articles dealing with medical costs were appearing in newspapers and magazines with increasing frequency.

The New Deal Administration announced it would seek the enactment of compulsory health insurance legislation. This was on its list as a must. Organized medicine was equally determined that such legislation should not be enacted. Surprisingly, the Administration did not press the matter too strongly until 1943, when the first Wagner Compulsory Health Insurance Bill was introduced.

Deeply concerned with these developments were a handful of medical leaders who urged not only the endorsement of voluntary health insurance but that something be done to get prepayment plans into operation.

It must be admitted that there was not much enthusiasm for this proposal among the medical profession. One of the most influential medical leaders of that period was the late Dr. Olin West, then Secretary and General Manager of the American Medical Association. Those of us who knew Dr. West held him in highest esteem. He was a man of convictions, integrity, and great courage. It was he who made the statement in the latter 1920's that "one great outstanding problem for the medical profession today is that involved in the delivery of adequate scientific medical service to all the people, rich and poor, at a cost which can be reasonably met by them in their respective stations in life." But Dr. West was no friend of medical society-sponsored voluntary health insurance plans. He was, to put it mildly, opposed to health insurance programs of any kind. I recall discussing the matter with him one time in Chicago. He was vehement in his insistence that voluntary health insurance could only lead to the compulsory variety.

Whether he was correct in his opinion, only time will tell. At any rate, a number of highly regarded physicians at that time disagreed with him, taking the position that a negative stand could not be justified. Leading physicians in such states as Wisconsin, Michigan and California raised their voices in strong support of prepaid medicine on a voluntary basis.

Before the 1930's came to a close, medical society-sponsored prepayment plans had made or were about to make their bow in California and Michigan. Washington State and Oregon had for a number of years a form of prepayment which was quite different from that which came later. Prepayment medicine did not gain real momentum until the 1940's, when Blue Shield came into existence.

These, then, are some of the phases of third party medicine which occupied the attention of the medical profession until World War II, when discussion of the subject ceased for the duration of the War.

With the passing of the Truman Administration and the election of President Eisenhower the fire of controversy again died down perceptibly.

GROWTH OF THE THIRD PARTY

What is the situation today? Has the third party withered on the vine, or has it flourished? The answer is obvious to all of you present. As I stated in the beginning, it is only too apparent that the third party has gained great momentum, with what effect remains to be seen.

Contract practice, especially as it involves hospitals, is still an issue. Legal proceedings have been instituted in some states to prevent the corporate practice of medicine. In one or two instances these efforts have been successful, the most outstanding being in Iowa.

There is no need to dwell upon the phenomenal growth of voluntary health insurance. Although still in its infancy it is a lusty infant. Dr. Odin W. Anderson, Research Director of the Health Information Foundation, states that in 1957 40 per cent of the total expenditures for health services was paid for by a third party. One hundred and eighteen million persons now have some form of health insurance. However, most of the present insurance and prepayment plans offer limited protection against the costs of illness.

"The drive for expansion of benefits," Dr. Anderson states, "has proved to be relentless since the costs outside the hospital frequently prove to be unduly burdensome for a family."

Six to 700 insurance companies are writing health insurance. There are about 300 Blue Cross, Blue Shield, and other nonprofit Plans in operation. Most of the Plans providing medical services permit free choice of physicians among those who agree to participate.

In the minds of a large number of physicians Blue Shield Plans are the big hope for the future where the medical profession is concerned. If proper leadership is given them, and if the medical profession coöperates they are confident of success in meeting the reasonable demands and the needs of the people as regards the payment of their medical bills.

As is well known, not all physicians approve Blue Shield Plans. Some say physicians should not engage in the insurance business and should get out of it as soon as they can. Others resent what they consider dictation of their fees. Still others disapprove disciplinary measures by a committee of their colleagues against Participating Physicians. By and large, the protestations of these physicians are looked upon by those who favor Blue Shield as growing pains.

Commercial insurance companies came into the voluntary health insurance picture following the lead of medical societies. When it became apparent to the companies that prepayment was not only feasible but could be made sound actuarially they became actively interested.

It is superfluous for me to tell you that labor unions are and will undoubtedly continue to be a formidable factor in third party medicine. They control vast health and welfare funds. This places them in a strategic position. It is apparent that much patience and good will on the part of both labor and the medical profession will be required to arrive at a mutually satisfactory understanding.

Nothing has been said up to this point about local, state, and Federal governments as a third party. Agencies included in this category are Public Health departments, all of which engage to a considerable extent in both curative and preventive medicine; the Veterans Administration, which not only provides all forms of medical care for veterans through its hospitals but in some states home care rendered by private physicians; and a large number of general and specialty hospitals and other medical institutions which make available medical service to a large segment of the country's population. The Government's Medicare program is the most recent arrival upon the third party scene. As you know, this program provides medical care for dependents of personnel in the uniformed forces under agreements with most state medical societies.

This, of course, is only a partial list of organizations and institutions which can be classified as a third party. It is sufficient, however, for the purpose of this discussion.

What About the Future?

Understandably, these developments have deeply concerned many physicians who have grave misgivings about the future of private medical practice. The question uppermost in their minds is: What is the best course for the medical profession to pursue? Is the third party situation the menace it appears to be? What elements in the third party arrangement are essential to safeguard the best interests of patients and physicians? What should be done to win sympathetic public support for the medical profession's point of view? I have discussed these questions with a number of physicians engaged in private practice for whose judgment I have the highest regard. The following, with slight variations, is a consensus of their views.

They were unanimous on one point—inroads of third party medicine will continue and will expand. As one physician wrote me, "I believe you will agree that there is nothing on the horizon lessening third party activities. I only hope that we will recognize that we have both friends and foes and will consider each case on its merits. To fight the inevitable on general principle is to fight a losing battle."

Of course, this physician said he did not mean that the profession had to accept anything that was handed it. He did mean that there would have to be some pretty objective thinking in the top echelons of organized medicine about the third party issue. First things, he insisted, will have to come first, and where medicine is concerned that is, as it always must be, the welfare of the patient.

Whether the third party is friend or foe in the minds of most physicians depends upon three things: (1) acceptance of the free choice principle, (2) noninterference in professional matters, and (3) adequate compensation, preferably on a fee basis.

The best assurance of maintaining free choice, my medical associates insisted, is for the profession to see to it that the quality of medical service is kept at a uniformly high level. Most physicians with whom I talked believe that much more should be done to assure the people that they need have no concern on this score.

At the present time a licensed physician can do as he likes about keeping abreast of medical progress. He may be, and sometimes is, content with what he learned in medical school and through experience in practice. Hospital medical staffs, however, have done much to maintain high standards of practice, but there is very little supervision of them outside these institutions.

Any mandatory requirement that all licensed physicians meet arbitrary standards of practice would undoubtedly meet with strong opposition by the profession. Nevertheless, this factor in the acceptance of the free choice principle cannot be ignored. The American Academy of General Practice recognized this when it required of its members that each year they do a certain amount of postgraduate study.

Another barrier to acceptance of the free choice principle, according to physicians with whom I have discussed the subject, is failure of medical organizations to take effective disciplinary action against wayward members. Grievance committees, in most instances, they say, are soft, cautious, or ineffectual. However, they admit there are a number of exceptions. The State of Washington now has a Medical Disciplinary Law which is being watched with considerable interest by the medical leaders.

The most prized prerogative of a physician is his freedom to exercise his professional judgment without interference. This is something that medicine has fought for with unyielding vigor. It is vitally important to patients as well as to physicians.

There is no question in the minds of students of the subject that in a decade or less voluntary insurance plans, if they are still in existence, will have enjoyed tremendous growth and provide much greater coverage than they now do. In fact, it is certain that most of the people in this country, probably 90 per cent of the population, will be protected by health insurance in some form. This means, of course, that the third party will be largely responsible for their medical bills. Fee schedules or specified payments for various procedures will of necessity have been accepted by the medical profession.

If this situation should come to pass, how satisfactory will the medical profession find it? That depends on how alert they have been and the leadership they have shown. One would think, with all the discussion, all the articles, and all the books that have been written on the socioeconomic aspects of medicine, that much of it would have permeated the doctor's thinking. On the contrary, it is surprising how few are informed, or are very interested in this subject. Happily, there is a group of whom this is not true. They are the ones on which many of us are pinning our hopes.

It is well known that socioeconomic patterns adopted nationally are never abandoned. One can be certain, for example, that Social Security is here to stay. So is contract practice. So is voluntary health insurance. In this situation it is vital that organized medicine provide constructive leadership.

Whether the third party is a friend or foe then depends a great deal upon medical leadership. This is especially true where the voluntary health insurance plans are concerned. The medical profession needs to know more about these plans and those who administer them. Without question, they are organized medicine's most valuable instrument in dealing with medical costs.

A few weeks ago Dr. Edward J. Stieglitz, a nationally known authority on the aging and a member of our Medical Society, submitted an article for publication in our medical journal entitled, "Water." In this article he stated he could not recall water being ever mentioned in scientific journals as a nutritional element.

"This blind spot," he wrote, "has often reminded me of the anecdote about the barfly who said to the bartender that blindfolded he could identify all ingredients in any mixed drink which the bartender could concoct. If he failed, he would pay double for the drink, but if he succeeded, he would get it free. The bartender mixed one cocktail after another. The contents of each was identified with unfailing accuracy. In desperation the bartender presented the man with an educated palate with a glass of water. The man tasted it carefully, rolled it about in his mouth, tried another sip, but was obviously puzzled. Finally he said, 'I don't know what this is, but I am sure it won't sell.' "

If the facts presented and the views here expressed are unacceptable to you, I have made no "sale." On the other hand, if what I have said has opened up some new channels of thought on controversial issues, it will not have been time wasted for any of us.

AMERICAN ASSOCIATION OF MEDICAL ASSISTANTS

Plans have been made for the Second Annual Convention of the American Association of Medical Assistants to be held at the Palmer House, Chicago, Illinois, on October 31, November 1 and 2, 1958.

The American Association of Medical Assistants is made up of men and women employed as assistants in the offices of doctors of medicine. It was conceived in Kansas City, Kansas, during the fall of 1955 when interested persons from 15 states met to make plans for a formal organization. The second meeting was held the following year in Milwaukee, Wisconsin, at which time a Constitution and By-laws was adopted and the Association began to function. During this first official year a great deal of work has been done. The first Annual Convention was held in San Francisco, California, in October, 1957. Now, with a membership of nearly 6,000, representing 17 states, and with the approval of state medical societies and the American Medical Association, our Association is well under way.

The purposes of the Association are as follows: to inspire its members to render honest, loyal and more efficient service to the profession and to the public which they serve; to strive at all times to coöperate with the medical profession in improving public relations; to render educational services for the self-improvement of its members and to stimulate a feeling of fellowship and coöperation among the societies; and to encourage and assist all unorganized medical assistants in forming local and state societies. This Association is declared to be non-profit. It is not nor shall it ever become a trade union or collective bargaining agency.

Several states now offer fine educational courses with the coöperation of their colleges and universities which will help the assistant to become more valuable in the doctor's office. Physicians realize that the well-trained assistant is an asset to their profession and that these courses will relieve them of much of the time-consuming work of on-the-job training. The Association plans to offer courses on a national level as soon as a suitable curriculum has been set up.

Membership in medical assistants' societies throughout the country has provided an opportunity for the assistant to benefit from many fine lectures, workshops, and seminars offered them as a part of regular programs.

The American Association of Medical Assistants is now offering its members a comprehensive insurance program. This is a salary replacement (sickness and accident) plan with optional major hospital, nurse expense, and surgical benefits.

It is to the advantage of the medical profession to have their medical assistants affiliated with this organization.

The American Association of Medical Assistants would welcome the opportunity of giving information concerning the organization and of assisting in the formation of county and state societies. Inquiries may be addressed to Miss Hallie Cummins, Medical Record Library, Caro State Hospital for Epileptics, Caro, Michigan.

Hallie Cummins, R.R.L.
Chairman, Public Relations Committee, American Association of Medical Assistants

DR. ORR OF FLORIDA TO HEAD AMA IN 1959

More than 170 physicians from Washington and the surburban area attended the 107th Annual Meeting of the American Medical Association in San Francisco, June 23–27.

Dr. Gunnar Gundersen, surgeon from LaCrosse, Wisconsin, was inaugurated, June 24, as the 112th President of the Association. He succeeded Dr. David B. Allman, of Atlantic City.

Dr. Louis M. Orr, distinguished urologist from Orlando, Florida, was named President-elect at the business session of the House of Delegates, June 26.

Dr. Orr was born in Forsyth County, Georgia, in 1899. He graduated from Emory University School of Medicine in 1924 and served a residency in urology and general surgery at the old Lakeside Hospital in Cleveland. He opened his office in Orlando in 1927.

Dr. Orr has had a long and distinguished career with the AMA before he was elected to its highest office. He has served as Vice Speaker of the House of Delegates, Chairman of the Federal Medical Services Committee, ex officio member of the Council on Constitution and By-laws, and as a member of the Council on Medical Service.

He was President of the Southeastern Section of the American Urological Association in 1943. During World War II Colonel Orr served in the Medical Corps and was Commanding Officer of the 15th Hospital Center in the European Theater of Operations.

Recipient of the 1958 Distinguished Service Award was Dr. Frank H. Krusen, Professor of Physical Medicine and Rehabilitation, Mayo Foundation, Rochester, Minnesota.

A new "National Interprofessional Code for Physicians and Attorneys" was approved by the House of Delegates. The Code will serve as a suggested guide for physicians and attorneys in their interrelated practice in the areas covered by its provisions, subject to the principles of medical and legal ethics and the rules of law prescribed for their individual conduct. The Code was formulated by a joint national medicolegal liaison committee made up of representatives appointed by the American Bar Association and the AMA. The three medical representatives were Dr. Hugh H. Hussey, Washington, and Drs. David B. Allman and George Fister.

At the première showing of a new medicolegal film, "The Man Who Didn't Walk," at the Sheraton-Palace Hotel, June 25, Dr. Hussey, of the AMA's Board of Trustees, and Attorney E. D. Bronson, representing the American Bar Association, gave the introductory remarks. This is the third film in the AMA-ABA series, which is produced by the Wm. S. Merrell Company of Cincinnati, Ohio.

Three members of the District Medical Society were elected to office at the Sectional meetings of the AMA. Dr. Victor L. Alfaro is the new Chairman of the Section on Laryngology, Otology and Rhinology. Dr. J. Winthrop Peabody, Sr., was named delegate to the AMA House of Delegates by the Section on Diseases of the Chest. Dr. F. M. Forster will serve the Section on Nervous and Mental Diseases in the same capacity.

Honorable mention was given to a scientific exhibit in the Section on General Practice developed by Drs. Paul Q. Peterson, S. D. Pomrinse and Bernard D. Daitz, Chronic Disease Program, Public Health Service, and Dr. Josephine J. Buchanan, District of Columbia General Hospital, entitled "Strike Back at Strokes: Early Mobilization of the Stroke Patient." Dr. Buchanan is an Active member of the D. C. Medical Society.

LOUIS M. ORR, M.D.

President-elect, American Medical Association

Dr. Milton T. Goldman received honorable mention in the Advanced Group for an oil painting he entered in the 21st Annual Art Exhibit of the American Physicians' Art Association.

GHI TO INCREASE RATES AND BENEFITS SEPTEMBER 1

Plans to increase subscriber rates and improve benefits, effective September 1, to most of the 760,000 subscribers in the Greater Washington Area, were announced, June 26, by F. P. Rawlings, Jr., President of Group Hospitalization, Inc.

Mr. Rawlings said the subscriber rate increase is not an across-the-board hike, but it will affect most of the persons enrolled under the Standard and Preferred Hospital Service Contracts, as will the benefits of broader outpatient coverage and more equitable allowances toward private room charges. He explained that many employers (non-Government) pay all or a portion of the subscription charge for their employees and the terms of the special group contracts under which those subscribers are enrolled will determine when the rate increase will apply to them.

Since March, 1952 GHI has not increased subscription rates despite steadily rising hospital and other costs. "Through careful management," Mr. Rawlings stated, "a smaller portion of the (GHI) subscriber's dollar is now being used to administer the Plan than in 1952—from 7.47 cents to 7.38 cents." However, last year Group Hospitalization drew more than $300,000 from reserves and so far this year "we have been drawing on these contingency reserve funds at the rate of $1,600,000 annually."

"If we are to continue to operate on a sound basis and at the same time provide our subscribers with substantial protection against today's high costs of hospitalization, there is no feasible alternative to an increase of subscription rates," Mr. Rawlings emphasized.

The new rates will be necessary, he said, because:

1. Each of the hospital services for which Group Hospitalization provides benefits has increased in cost;

2. The number of hospital admissions for each thousand subscribers has increased; and

3. The number of days of hospital care required annually by each thousand subscribers has increased.

Hospital Costs and Services

Since March 1, 1952, costs in participating hospitals have risen about 6⅔ per cent each year, or 40 per cent since the last rate increase. Furthermore, Mr. Rawlings pointed out, economists predict that hospital costs will continue to rise 6 per cent or more annually; for example, "the average cost of hospital care in our participating hospitals in 1952 was $23 a day, but today it is conservatively estimated the average cost is slightly over $32."

"During 1957, there were 4.3 more hospital admissions for each thousand subscribers than there were in 1956 and 3.8 more than in 1955. Also, in 1957, each 1,000 subscribers required 22.6 more days of hospital care than they required in 1956 and 64.8 days more than in 1955.

"During the 6-year period since our last rate increase our subscribers have enjoyed a substantial measure of protection against these rising costs because of the service benefit feature of their contract. This outstanding feature of our Plan has protected our subscribers against rising costs because the benefits automatically increase each time and to the same extent that hospital costs advance."

Mr. Rawlings explained that the extension of benefits for outpatient care and more equitable credit toward the charges for private accommodations offer subscribers broader coverage and greater flexibility in the use of their contracts.

Specifically, the improved GHI benefits will increase the allowance toward the hospital's charges for private rooms, and remove the dollar limitation on outpatient care.

New Subscription Rates

The new subscription rates, payable in August for protection beginning September 1, 1958, are as follows:

Standard Hospital Service Plan
for group subscribers

Individual Contract: $2.38 a month, an increase of 68 cents
Family Contract: $5.48 a month, an increase of $1.78

for non-group subscribers

Individual Contract: $3.50 a month, an increase of $1.45
Family Contract: $7.00 a month, an increase of $2.55

Preferred Hospital Service Plan
for group subscribers

Individual Contract: $2.86 a month, an increase of 78 cents
Family Contract: $6.72 a month, an increase of $1.00

STATEMENT IN OPPOSITION TO H.R. 9467*

I am Dr. Donald Stubbs and I am engaged in the private practice of medicine in Washington, D. C. I am appearing here today as Chairman of the Board of Directors of Blue Shield Medical Care Plans, which is the National Association of Blue Shield Plans.

There is a growing concern to make adequate medical care available to those who need it, while at the same time forestalling a heavy burden of cost on any given individual. Section 106 of H.R. 9467, which is one of the many manifestations of this concern, would provide certain hospital and medical benefits to those who are eligible to receive Social Security payments. The medical profession has long known of the needs which such proposals are intended to meet and has been moving steadily along many lines to fulfill them, not only for the aged, but for all of the members of the community. The general awareness of these problems has grown with and perhaps because of our mounting success in understanding and solving them. Blue Shield Plans were created by doctors to offer the public a practical method for budgeting the cost of medical care through the mechanism of prepayment.

Since Blue Shield membership now includes more than 2½ million citizens past 65 years of age, and since our policies will permit continuation of their coverage to all under our program as they pass this age, we believe that this Committee wants to know about our efforts and potential in this field. This dramatic success story is better shown by a brief review of its history than by simple comparison of its present status in relation to the full problem of health care, especially in the aged.

There is nothing new about the idea of paying physicians in advance for their services. In ancient Greece and Rome, and in medieval Europe, it was customary for wealthy families to retain physicians as more or less permanent members of their households, looking after the medical needs of the family and its servants in return for a comfortable living and, frequently, an annual stipend. In the case of landowners with extensive holdings, it became customary for the family physician to attend the needs of tenant farmers and villagers living on his patron's property. In rural areas, especially, the remnants of this earlier system of medical care were still in evidence as late as the middle of the nineteenth century.

The direct forerunners of our present plans did not appear in the United States, however, until the late years of the nineteenth century, when lumber and mining companies operating in remote areas in the North Central and Northwest states provided "contract service" for company employees and, occasionally, their families. Some of the companies made contracts directly with individual physicians, who agreed to provide complete medical service for company employees. In return they received a regular monthly fee that varied according to the number of men on the company payroll. Other companies entered into contracts with groups rather than with individual physicians. In the Pacific Northwest, medical service bureaus were organized and made contracts with employers for the provision of medical service to workers on a prepaid, or monthly fee, basis.

In Washington and Oregon, a substantial amount of all medical care rendered to wage-earners had come within the jurisdiction of these "medical bureaus" by the 1920's. Many of these organizations came into the hands of promoters who were more interested in price than quality of service and bargained with physicians and groups of physicians to drive prices down. To combat this practice, the county medical societies organized their own medical service bureaus, contracting with employers for the care of employees, who then had freedom of choice among all participating physicians. Many of these county medical society service bureaus are still in operation. In Oregon, most of them have been merged into a statewide Blue Shield organization, Oregon Physicians' Service.

All of these minor forays into the unknown morass of prepaid health care were accumulating experience which a mere two decades ago began to take on some aspects of coherence. In 1939, the first Blue Shield-type plan was established in California with capital funds advanced by the California Medical Association. In the beginning, enrollment in California Physicians' Service was slow, and it developed that subscribers used more service than the Plan was able to pay for at the established rate. Soon the participating physicians had to accept less-than-par payments for services rendered. In this way they guaranteed the financial security of the Plan, enabling it to fulfill its contracts until the schedules of rates and benefits could be adjusted in accordance with actual experience.

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* Presented by Dr. Donald Stubbs, Chairman of the Board of Directors, Blue Shield Medical Care Plans, before the Ways and Means Committee in Washington, D. C., June 25, 1958.

This experience in California, which was repeated elsewhere in the early, formative years of Blue Shield development, underlines an important, distinctive feature of the doctor-sponsored plans—the acceptance of responsibility for the plan's stability and success by the medical community. Without this stabilizing force, the early plans might easily have gone under financially.

While the California Physicians' Service was living through its first perilous year of existence, the Michigan State Medical Society, another pioneer in the prepayment movement, was organizing the Michigan Medical Service. It began its activities in March 1940.

Following the lead of California and Michigan, other states, and some county medical societies, organized similar prepayment plans. Each plan was established as a separate corporation. Rates and benefits, methods of reimbursing physicians, and other details varied widely from state to state, but the plans all had one important feature—sponsorship by the local medical profession. This has been a significant factor in the development of the Blue Shield movement. It has been important not only because of the financial assistance furnished by physicians, but also because the physicians determine the kinds and amounts of medical service their patients need.

This grass roots movement indicated the universality of the problem and the attractiveness of this effort to solve it. The public acceptance of prepayment through Blue Shield has been phenomenal. In 1941 there were only 370,000 members of Blue Shield Plans throughout the country. By 1949 the membership had increased to 12 million, but in the ensuing 8 years since 1949, membership has grown to more than 41 million people, about one-fourth of the total population.

Along with Blue Shield's rapid growth in membership there has been an improvement in the scope of benefits offered. In its formative years Blue Shield provided payment only in those cases where surgery was performed in a hospital. Today, however, virtually all plans provide payments for the services of physicians who render in-hospital medical care for conditions not requiring surgery. In addition, payments for home and office surgery are also provided. Coverage of home and office calls is available in about 20 per cent of the plans and comprehensive or extended coverage for the unusually costly or long-term illness is already being offered by Blue Shield. The trend is to a continuing reform and extension of all types of existing benefits. This accelerating growth both as to numbers included and extent of benefit for each subscriber has in the last few years shown that the voluntary approach can do the job.

The present size of Blue Shield is impressive in an absolute sense but its significance is further enhanced by the intimate and responsible relation of the medical profession to every phase of its activity. In the process of our growth and expansion we have been aware of the problems of that segment of the population which has reached the age of 65. A majority of Blue Shield Plans have no age limit on enrollment through employed groups, and where limits do exist they are generally waived if the group being enrolled is of reasonable size. Furthermore, it is the universal practice to permit a member to continue membership after retirement, and some plans will accept initial individual enrollment without regard to age. Recent studies show that about 6½ per cent of the total Blue Shield membership are people who have attained the age of 65 or over. Thus of the total membership in excess of 41 million, some 2½ million fall in that age category. Thus Blue Shield coverage of people over 65 is reasonably related, even now, to the general population over 65. Because Blue Shield's present and future subscribers have the right to retain coverage after retirement, our future inclusion of aged persons is bound to increase numerically as well as relatively.

Throughout our statement we have confined ourselves largely to what Blue Shield has been doing, but I am sure that you have heard or will hear what other organizations such as Blue Cross and the insurance companies have also done and are doing to provide the means whereby health protection is available to virtually all of our citizens through voluntary means. Well in excess of 100 million people, or about two-thirds of the total population,

(*Continued on page 444*)

On the Lighter Side

September is almost upon us. September is one of the most important of months for the lovers of bowling. One hundred (give or take a few) physicians and dentists of the Greater Washington Area will be on hand come September 12 at the Bethesda Forty Bowling Alleys ready to take their stance, go into their stride and let fly with that duckpin ball. Another bowling season of the D. C. Medical-Dental Bowling League will then be aborning.

All medical and dental men of might and main who enjoy and seek the easy comradeship of friendly fellows, and who need take advantage of the physical exercise of the sport of bowling, will be present and accounted for. Those of you readers who were unfortunate enough not to have rolled in the League last year, but who would like to enjoy all the advantages of bowling this year by joining a team, please call the Secretary of the League, James Carter, at Oliver 6-8043 after 6 p.m. any weekday.

Below you will find the statistical data of the 1957–58 bowling season. There is the final standing of the teams with their high games, their high set, the won and lost column, and the amount of pins that were scuttled during the season by each team. Also, under each team, you will find the personal records and averages of each team member—the games that they rolled, the number of spares that each made, the number of strikes for each, the high game and high set for each, and finally the bowling average of each member at the end of the season.

Team Standings

Place	Team	HG	HS	W	L	Pins
1	Doctors	551	1559	63	30	45,470
2	Beta	580	1556	55	38	45,372
3	Sibley #1	573	1629	53	40	46,744
4	Casualty	609	1683	51	42	47,781
5	Suburban	588	1609	50	43	47,126
6	Columbia	559	1552	48	45	45,574
7	Alpha	534	1511	47	46	43,884
8	Children's	569	1634	46	47	46,784
9	Delta	503	1384	46	47	40,506
10	Garfield	551	1550	44	49	44,125
11	Sibley #2	564	1613	41	52	44,766
12	Providence	567	1615	40	53	45,928
13	Emergency	560	1541	37	56	45,026
14	Gamma	528	1460	30	63	42,135

Individual Records

Team	G	Sp	St	HG	HS	Avg.
ALPHA						
Taylor	90	108	40	122	311	95-51
Cercell	93	116	33	120	334	96-26
Kogan	90	130	26	124	344	96-73
Greeves	90	93	32	126	313	92-17
Bouchard	87	94	27	129	319	92-33
BETA						
Douglas	90	127	37	125	332	97-69
Hopkins	93	143	30	133	347	99-34
Berman	90	122	30	131	359	98-28
Hollis	84	128	33	125	339	99-33
Castro	87	99	33	142	332	94-59
CASUALTY						
Dibbs	93	94	28	122	319	91-76
Duffy	90	217	38	174	406	111-62
Price	90	158	46	152	384	105-47
Hageage	84	158	46	134	366	106-21
Eig	69	130	29	131	365	105-56
Clark	5	4	2	109	285	104
Canton	3	5	0	97	280	97
Fitzgerald	1	0	1	94	94	107
Twigg	3	3	1	107	291	101
CHILDREN'S						
Bacon	90	119	29	131	323	97-80
Cook	87	115	24	121	315	96-15
Kessler	76	142	35	138	349	104-47
Pekin	51	72	23	139	367	101-40
Kay	71	124	25	145	354	103-10
Resta	80	131	38	139	372	103-11
COLUMBIA						
Kadan	82	160	31	153	367	104-81
C. Reeves	82	135	30	135	351	101-27
Hodge	80	99	27	134	328	96-3
McDonald	73	94	22	129	336	97-0
Connolly	69	87	27	119	324	95-65
Sealfon	69	82	19	117	326	94-52
G. Reeves	9	0	0	83	243	78-8
DELTA						
Rabin	90	86	19	115	327	89-25
Conlon	90	38	9	100	271	78-21
Keaveny	84	78	25	116	302	89-71
Crowley	72	69	14	120	302	88-37
Von Eiff	44	35	7	97	284	84-23
Fridl	24	25	13	124	316	97-10
Bowie	15	14	3	109	290	88-8

TEAM	G	SP	ST	HG	HS	AVG.
DOCTORS						
Perkins	87	128	30	131	336	97-48
Thomas	82	148	28	132	349	100-19
Brown	76	118	35	133	346	101-18
Golden	78	106	24	145	341	97-32
Lloyd	62	96	22	142	346	99-13
Silverman	56	65	20	125	314	94-44
EMERGENCY						
Schumacher	75	92	26	134	331	95-63
Van Kinsbergen	93	189	44	146	368	106-58
Brawner	90	134	32	143	333	97-54
P. Dorman	81	58	16	116	300	85-62
Hawfield	69	113	34	129	345	101-43
H. Dorman	34	35	11	119	305	94-5
Young	12	13	5	127	309	88-2
GAMMA						
Salcetti	90	97	16	125	326	89-2
Ferrigno	87	96	28	122	312	93-52
LeBlanc	87	98	22	130	324	93-14
Fleming	86	83	19	129	296	90-42
Mueller	80	79	16	135	304	88-56
GARFIELD						
Klein	68	63	21	125	312	89-32
Cosimano	87	105	37	134	331	96-34
Cushard	81	108	30	138	347	98-47
Peizer	63	93	22	130	368	99-14
Grubb	57	68	14	123	317	93-19
Richtmeyer	30	60	8	141	336	102-10
Bunge	24	23	5	107	288	89-14
PROVIDENCE						
Levin	90	222	50	145	380	111-61
A. Crain	87	140	39	127	370	102-43
Cashman	75	94	21	121	314	93-62
Heiges	69	83	27	123	310	94-28
Feldman	71	60	16	120	299	87-7
Rutstein	18	39	8	132	343	110-4
O'Keefe	1	0	0	61	61	79
William'sky	8	17	4	125	330	109-6
D. Crain	3	3	0	96	268	89-1
SIBLEY #1						
Finnegan	85	141	22	136	363	99-78
Ball	93	155	42	136	348	104-27
Richardson	87	147	31	133	345	100-85
Belair	78	124	19	134	336	97-63
Schilke	44	49	10	128	314	93-23
Baiers	48	118	27	146	398	112-38
Clements	15	14	2	101	288	87-7
Klepser	1	1	0	77	77	97
SIBLEY #2						
McLain	92	127	30	132	259	98-90
Morse	93	136	39	130	333	100-5
Hand	84	148	25	129	346	101-31
Kirchner	83	117	33	130	324	98-72
Newman	63	83	17	119	326	95-31
Shea	9	10	4	121	292	90-2
Barnhard	7	10	5	126	332	96
SUBURBAN						
Andrews	93	131	33	140	336	99-48
Porton	93	135	35	122	326	98-22
Ottman	91	154	35	137	359	102-29
Betz	84	156	41	161	365	105-22
Meyer	54	120	20	143	366	107-43
SUBSTITUTES						
Carter	74	77	22	123	315	91-14
Gable	36	44	11	122	316	95-33
Oberman	12	17	3	106	304	96-8
MacDonald	8	21	2	113	222	107

Look over those statistics and you will find many a name that you know. Remember your name could be there next season!

Come on and join us. It is worth the time and the effort and you will enjoy yourself immensely even if you are not a bowling champ. See you in September.

J. EARL KADAN, M.D.

ACCP'S NEW STATEMENT ON BCG

The American College of Chest Physicians, an organization comprised of 6,403 physicians in 89 countries and territories throughout the world, met in annual session in San Francisco, June 18–22, 1958. Its Executive Council passed the following resolution:

"In view of the vital interest in improving public health and welfare, and in the eradication of diseases of the chest in particular, our position regarding the use of BCG (bacillus Calmette-Guerin) against tuberculosis in the United States should be made known. At the present time there is insufficient evidence that significant protection is afforded by its use. The Council fully endorses the anti-tuberculosis control program of the U. S. Public Health Service, which includes research in BCG, and urges the continued support of their program."

News and Personals

MEETINGS

The Southern Medical Association will hold **open house** on Sunday, September 7, from 2 to 5 p.m., in its new, modern office building at 2601 Highland Avenue, Birmingham, Alabama. Members and friends will be received by the officers and staff. A formal and brief dedication will be held in the foyer at 4 p.m.

The date for dedication of the new building was chosen to coincide with the opening day of Birmingham's first Medical Progress Assembly at the Tutwiler Hotel. SMA members are cordially invited to attend the "get together party" on Sunday evening, 6 to 8 p.m., at the Tutwiler Hotel.

Announcement of the **Sixth Annual Symposium on Antibiotics,** sponsored by the journals *Antibiotics & Chemotherapy* and *Antibiotic Medicine & Clinical Therapy*, appeared in the June issue of the MEDICAL ANNALS.

A more recent announcement states that on October 15, the opening day of the 3-day meeting, the morning session will be an historical one, because it is now 30 years since the discovery of penicillin by Sir Alexander Fleming and 10 years since the introduction of the concept of broad-spectrum antibiotics. Dr. Félix Martí-Ibáñez will be moderator at this session and will give an address on "The First Thirty Years." Four other eminent speakers have been asked to take part in this program: Sir Howard Florey, to speak on "Penicillin, Thirty Years After"; Dr. Selman Waksman, on "Antibiotics of Actinomycetes, an Introduction and Outlook"; Dr. Harry F. Dowling, "The Broad-Spectrum Antibiotics"; and Dr. Chester Keefer, "The Impact of Antibiotics on American Medicine."

Several panel discussions are planned. Dr. Maxwell Finland, of Boston, will be moderator for a panel discussion to cover the following topics: Current Status of Erythromycin, Kanamycin, Novobiocin, Oleandomycin, Ristocetin, and Vancomycin, with particular reference to their effectiveness in staphylococcal disease. Dr. Robert I. Wise, of Philadelphia, will be moderator for a panel discussion on "Causation, Prevention, and Control of Staphylococcal Diseases in Hospitals."

The meetings will be held at the Willard Hotel, October 15, 16 and 17. Manuscripts should be submitted before September 15 to Dr. Henry Welch, Director, Division of Antibiotics, Food and Drug Administration, U. S. Department of Health, Education, and Welfare, Washington 25, D. C. All manuscipts will be published in English in book form under the title "Antibiotics Annual 1958-1959" by Medical Encyclopedia, Inc., 30 East 60th Street, New York 22, New York.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia held its regular meeting on June 16, 1958, with the Chairman, Dr. Herbert P. Ramsey, presiding. The Board voted favorably on assisting in the organization of a local chapter of the American Association of Medical Assistants (see page 430 of this issue for a description of the origin and purposes of the Association). The vote came at the request of the Committee on Public Information which had polled the membership with respect to coöperating in such a project. The response was not large but overwhelmingly favorable. The Board endorsed the recommendation of the Committee, but with the understanding that the organization's membership be restricted to medical assistants employed in the District of Columbia.

The Board voted to apply for membership in the Health and Welfare Council of the District of Columbia.

Dr. C. Willard Camalier, Chairman of the Committee on Medical Care, was invited to address the Board on several matters which had come before his committee. After hearing Dr. Camalier, the Board commended him and the members of his committee for their conscientious and effective service to the Society.

At the suggestion of Dr. Oscar B. Hunter, Jr., Chairman of the Public Health Committee of the Washington Board of Trade, the Board voted to join with the Committee in sponsoring a luncheon in honor of Dr. Leroy Burney, Surgeon General of the Public Health Service, who was recently elected President of the World Health Organization. Dr. Clifton R. Gruver, Chairman of the Committee on Public Health, and Dr. George Maksim, Chairman of the Committee on Public Information, were designated representatives of the Society to assist with arrangements for the luncheon.

The resignations of Dr. Camalier and Dr. William K. Billingsley, Jr. from the Medicare Review Board, because of the pressure of other responsibilities, were accepted with regret.

The Secretary reported that he had received a copy of a letter to the D. C. Board of Commissioners from Dr. Preston A. McLendon wherein he submitted his resignation from the Advisory Council on Vocational Rehabilitation because of many other demands upon his time.

Current deadlines for applications to the **National Foundation for Infantile Paralysis** for post-doctoral fellowships in research and academic medicine or in the clinical fields of rehabilitation, orthopedics and preventive medicine are September 1 and December 1. Complete information on eligibility and educational prerequisites may be obtained by writing to the Division of Professional Education, National Foundation for Infantile Paralysis, 301 East 42nd Street, New York 17, New York.

A Genetic Counseling Service at George Washington Hospital has been established under the direction of the Department of Neurology. Directing the program is Dr. Ntinos G. Myrianthopoulas, geneticist, Epidemiology Branch of the National Institute of Neurological Diseases and Blindness at Bethesda, Md.

Episcopal Eye, Ear and Throat Hospital, the third and last institution to merge into the new Washington Hospital Center, closed its doors the middle of June after 61 years of service devoted to patients suffering from diseases of the eye, ear, nose and throat. Episcopal now becomes the Eye, Ear and Throat Department of the new Center, with a bed capacity of 128. Its teaching program and 3-year residency training facilities will be continued.

The Medical Council of the Washington Metropolitan Area elected new officers at its meeting in the Mayflower Hotel, May 27. They are: Dr. James M. Moss, President; Dr. William Joyce, Vice President; and Mrs. Ruth Loomis, Secretary. Dr. Moss, President of the Alexandria Medical Society, succeeds Dr. Ralph M. Caulk, who was elected first President of the Council when he was President of the Medical Society of the District of Columbia in 1956–57. Dr. Joyce is President of the Montgomery County Medical Society. Mrs. Loomis, Secretary of the Alexandria Medical Society, succeeds Theodore Wiprud, Secretary of the District Medical Society, who was on the first slate of officers.

The proposed Northern Virginia Doctors Hospital is being financed by a public stock offering first issued on June 11 through Whitney & Company, Inc., Washington investment banking firm.

First stage of the planned medical center will be a 75-bed convalescent hospital for aged and chronically ill patients. The second stage of the medical center calls for a 200-bed general hospital to be housed in a 4-story building adjoining the convalescent unit. Total cost of the project would be $5,297,351 including buildings, all equipment, landscaping, land, and architectural and engineering fees. The medical center is to be erected on a 13-acre tract on South Carlyn Springs Road in Arlington.

The President of the Northern Virginia Doctors Hospital, Inc., is Dr. Robert A. Rounds, of Falls Church, Virginia, a member of the Fairfax County Medical Society. Dr. William T. Spence, of Washington, an Active member of the D. C. Medical Society, is Vice President. Secretary and Treasurer are Dr.

Thomas E. Haggerty, of Falls Church, and Dr. W. Morgan Delaney, of Alexandria, respectively.

In addition to the officers, the Board of Directors consists of the following doctors: Drs. John E. Alexander, Clifford E. Bagley, Harry C. Bates, Lloyd B. Burk, John T. Hazel, John E. Prominski, W. Leonard Weyl, and J. D. Zylman, all of Arlington; Drs. Anson R. Hyde, Joseph A. Kiesel, Henry T. Kulesher, Christopher J. Murphy, Jr., Thomas E. O'Brien, Raymond L. Schwartz, and Peter Soyster, of Falls Church; and Dr. Donald S. Thorn, of Newington. Several of these physicians are Associate or Affiliate members of the D. C. Medical Society.

The Washington Hospital Center has notified the District Health Department that it is withdrawing its ambulance from the city's emergency ambulance service because of the high cost of maintenance. Six emergency service ambulances are now available, 5 operated by the Fire Department and 1 by Casualty Hospital.

The following officers will serve the **D. C. Dental Society** during 1958–59:

Dr. Bruno G. Floria, *President*; Dr. Samuel A. Leishear, *President-elect*; Dr. Sterling G. Mead, *Vice President*; Dr. John Keaveny, *Secretary*; and Dr. Edward D. Leifer, *Treasurer*.

Dr. Mead is an Associate member of the District Medical Society.

Dr. Thomas E. Reichelderfer became head of the Department of Pediatrics at **D. C. General Hospital,** July 1. He is a graduate of Johns Hopkins University School of Medicine and Public Health, where he also completed his residency in pediatrics in 1954. He came to Washington in 1957 to conduct special research on visuses, particularly those responsible for childhood ills, at the National Institute of Allergies and Infectious Diseases. Dr. Reichelderfer succeeds **Dr. Leroy Hoeck,** who resigned in January to go into private practice. Dr. Hoeck is an Active member of the D. C. Medical Society.

Dr. Jack C. Haldeman has been appointed Chief of the Division of Hospital and Medical Facilities of the **Public Health Service** with the rank of Assistant Surgeon General. He succeeds Dr. Vane M. Hoge, who is leaving PHS after 30 years' service to become Executive Director of the newly formed Hospital Planning Council of Metropolitan Chicago on September 15.

Dr. Haldeman has served as Deputy Chief of the Division of Hospital and Medical Facilities for the past year. In his new position he will administer the Hill-Burton program of Federal grants to assist communities and states in medical facility construction. A native of Enid, Okla., he received his medical degree from the University of Oklahoma in 1937 and his Master's degree in Public Health from the University of Michigan in 1943.

Mr. William Becque was named **Executive Director of the D. C. Tuberculosis Association** at the meeting of the Board of Directors, June 18. He succeeds the late Edward K. Funkhouser, who died last February.

Mr. Becque came to Washington last August to head the Association's Public Service Department. For 2 years previously he had been Executive Director of the New Haven (Conn.) Tuberculosis Association, and for 3 years he had served in the same capacity at the Bucks County (Pa.) Tuberculosis and Health Society.

Mr. Becque is a native of Maryland and resides with his wife and three children at Sumner, Md. He is a graduate of Johns Hopkins University and in 1952 attended the School of Public Health at the University of North Carolina.

Dr. John C. Nunemaker, Director of the Education Service in the Veterans Administration Department of Medicine and Surgery, left the VA on August 1 to become **Associate Secretary of the Council on Medical Education and Hospitals of the American Medical Association.** He has been associated with the VA Central Office since 1952.

Dr. Theodore Koppanyi, Professor and Chairman of the Department of Pharmacology at Georgetown University School of Medicine, has received a Fulbright Award to participate in the **International Educational Exchange Program.** He will lecture in pharmacology at the Hebrew University in Jerusalem, Israel, during the 1958–59 academic year.

PERSONALS

Dr. Leroy E. Burney, Surgeon General of the Public Health Service, recently elected **President of the Eleventh World Health Assembly,** was honored at a testimonial luncheon, July 1, at the Mayflower Hotel, sponsored by the Washington Board of Trade and the Medical Society of the District of Columbia. Other organizations which joined in paying tribute to Dr. Burney were the Health and Welfare Council of the Washington Capital Area, the District of Columbia Recreation Department, the U. S. Junior Chamber of Commerce, and the Congress of the United States.

Dr. Oscar B. Hunter, Jr., Chairman of the Public Health Committee of the Washington Board of Trade, gave the welcoming address at the luncheon program. The Honorable Lister Hill, Chairman of the Subcommittee on the Departments of Labor and Health, Education and Welfare, of the Appropriations Committee, presented a plaque to Dr. Burney in commemoration of the event. Speaker for the occasion was Dr. Gunnar Gundersen, President of the American Medical Association. His address at the luncheon was his first public appearance as President of the AMA.

Among those who assisted Mr. Julius N. Cahn, General Chairman of the Committee on Arrangements for the luncheon, were Dr. Hunter, Dr. James W. Watts, President of the D. C. Medical Society, and Drs. Clifton R. Gruver, George Maksim, and Duane C. Richtmeyer.

Dr. J. Winthrop Peabody, Past President of the American College of Chest Physicains, was presented with the College Medal and Certificate of Award for meritorious achievement in the specialty of diseases of the chest at the annual meeting of the College in San Francisco, June 21. The award was made by Dr. Burgess L. Gordon at the President's banquet, held at the Fairmont Hotel.

The award was made particularly in recognition of the advancement of postgraduate medical education under Dr. Peabody's direction. Since its inception in 1945 he has served as Chairman of the Council on Postgraduate Medical Education of the College, and during the 12 years intervening has organized and participated in 54 postgraduate courses in 14 cities.

Dr. John A. Reed received the Banting Medal, highest honor of the American Diabetes Association, in San Francisco, June 21. The award also marked his retirement as President of the Association. He has been a member of the National Association's governing body since 1948.

Dr. Oscar B. Hunter, Jr., was elected President-elect of the National Medical Veterans Society at its annual meeting, held at the Sheraton-Palace Hotel in San Francisco, June 23. Dr. Milton V. Davis, of Dallas, Texas, was installed as President.

Dr. John W. Walsh, Associate Clinical Professor of Obstetrics and Gynecology, Georgetown University School of Medicine, attended and participated in the 10th Annual Meeting of the Continental Gynecologic Society, held in Vancouver, B. C. At the business meeting he was elected for the third term to the office of Secretary-Treasurer.

Dr. Lawrence S. Lilienfield, Assistant Professor of Medicine, Georgetown University School of Medicine, established investigator of the American Heart Association, has received a grant-in-aid of $8,000 per year, for 3 years, from the Heart Association.

Major General Dan C. Ogle, Surgeon General of the Air Force, was awarded the honorary degree of Doctor of Laws, June 8, by his alma mater, Eureka College, Eureka, Illinois in recognition of exceptional achievement in his chosen career. General Ogle, who was the commencement speaker, received his bachelor's degree from Eureka College in 1924. He is an Honorary member of the D. C. Medical Society.

Dr. Maurice Protas has been appointed Governor for the District of Columbia of the American Diabetes Association for a three-year term, 1957–60.

Dr. John C. Rose, Associate Professor of Medicine at Georgetown University School of Medicine, has been appointed Acting Chairman of the Department of Physiology, effective July 1. He succeeds Dr. Charles F. Morgan, who resigned to become Research Professor of Pharmacology at Georgetown.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
May 2	Dr. Erwin Steinman	What I Like and Dislike about Detail Men	CIBA Sales Refresher Course, New York City
May 13	Dr. Azad Vosger	Diseases of the Gastrointestinal Tract	Association of Undergraduate and Practical Nurses of D. C.
May 14	Dr. Samuel D. Loube	The Medical Aspects of Aging	Communications Workers of America, AFL-CIO
May 21	Dr. Marvin E. Perkins	Community Mental Health with Special Reference to the District of Columbia	D. C. Psychological Association
May 27	Dr. Alvin E. Parrish	Problems in Medical Education	Optimist Club of D. C.
June 15	Dr. C. Willard Camalier, Jr.	Service Through Nursing	1958 Nursing Class, Sibley Memorial Hospital
July 11	Dr. Lloyd Lewis	Genitourinary Surgery	Graduate Nurses, Doctors Hospital
July 18	Dr. Fred Geier	Diets and Intravenous Fluids	
July 25	Dr. William Jamison	Heart and Vascular Surgery	
August 1	Dr. Paul Putzki	Gastrointestinal Surgery	
August 8	Dr. Donald Stubbs	Postoperative Care	

Dr. Rose, an Associate member of the District Medical Society, received his medical degree from Georgetown and was appointed to the Georgetown faculty in 1954.

The Washington Heart Association elected 10 new members to its Board of Directors, expanding the number to 40 in anticipation of wider community participation. Among the new Board members are **Drs. John W. DuChez, Henry D. Ecker, John F. Finnegan, Edward D. Freis, and Charles A. Hufnagel,** members of the District Medical Society.

Drs. Robert C. Burnham and Alice H. Kiessling, Associate members of the District Medical Society, have been appointed to the Board of Directors of the Northern Virginia Mental Health Association. Dr. Burnham was appointed for a 2-year term and Dr. Kiessling for 3 years.

Dr. Howard T. Karsner, Associate member of the District Medical Society, has been appointed to the Scientific Advisory Board of Consultants of the Armed Forces Institute of Pathology. Dr. Karsner has been a member of this Board since its establishment in 1947 and began a new 5-year term on July 1, 1958.

Dr. S. A. Steiner, who is a resident in psychiatry at High Point Hospital, Port Chester, New York, writes that he has joined the Westchester Mental Health Association and is serving on a committee of that organization which will evaluate the facilities available in White Plains, N. Y., for emotionally disturbed children.

Physicians recently certified by the American Board of Obstetrics and Gynecology are **Drs. Leon McN. Liverett, Harry I. Martin, and Melchior F. R. Savarese.**

Dr. Jane B. McKewen, who was recently elected to Active membership in the D. C. Medical Society, left the United States to begin practice, July 15, in the Hospital Albert Schweitzer in Haiti, West Indies.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, September 22, 1958.

For Active Membership

James E. Abell, Georgetown University—1950
Brooke A. Beyer, Georgetown University—1953
James A. Davis, Georgetown University—1951
Henry S. Ellison, Howard University—1952
Richard C. Fowler, University of Rochester—1944
John W. McTigue, University of Pennsylvania—1950
Robert A. Mendelsohn, Georgetown University—1949
Joseph D. Noshpitz, University of Louisville—1953
Ralph A. Olson, University of Illinois—1952
Louis R. Perna, George Washington University—1953
Mauris M. Platkin, University of Geneva (Switzerland)—1953
Wilson A. Powell, Medical College of Virginia (Richmond)—1947
Irwin W. Rovner, University of Iowa—1953
John A. Sanders, Georgetown University—1953
Warren J. Strudwick, Howard University—1952
Stanley J. Talpers, University of Colorado—1953
Howard E. Waldstreicher, University of Geneva (Switzerland)—1955
Sidney L. Werkman, Cornell University—1952
Albert S. Winer, University of Maryland—1938

For Associate Membership

Colonel John B. Coates, Jr., M.C., U.S.A., University of Pennsylvania—1936
Osman E. Ersoy, University of Istanbul Medical Faculty (Turkey)—1948
G. Lennard Gold, University of Virginia—1952
John Hernandez, National University of Mexico—1953
Sarah H. Knutti, Johns Hopkins University—1939
Donald Nelson, New York University—1953

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Orthopedic Diseases: Physiology-Pathology-Radiology. ERNEST AEGERTER, M.D., Professor of Pathology and Director of the Department of Pathology, Temple University Medical Center and School of Medicine; Professor of Orthopedic Pathology, University of Pennsylvania Graduate School of Medicine; Chief in Pathology, Philadelphia General Hospital; Consultant in Pathology, Frankfort Hospital, United States Naval Hospital and Veterans Administration Hospital, Philadelphia, AND JOHN A. KIRKPATRICK, JR., M.D., Radiologist, St. Christopher's Hospital for Children; Assistant Professor of Radiology, Temple University Medical Center; Radiologist, Children's Heart Hospital; Attending (Radiology), Veterans Administration Hospital, Philadelphia. Price, $12.50. Pp. 602, with 354 figures. Philadelphia: Saunders, 1958.

Pye's Surgical Handicraft. A Manual of Surgical Principles, Minor Surgery, and other matters connected with the work of surgical dressers, house surgeons and practitioners, 17th ed., fully revised. Edited by HAMILTON BAILEY, F.R.C.S. (Eng.), F.A.C.S., F.R.S. (Edin.), Emeritus Surgeon, Royal Northern Hospital, London; General Surgeon, Metropolitan Ear, Nose, and Throat Hospital; Consulting Surgeon, Italian Hospital; Hunterian Professor, Royal College of Surgeons; Vice-President, International College of Surgeons; formerly External Examiner in Surgery, University of Bristol. Price, $10.00. Pp. 800, with 860 illustrations. Baltimore: Williams & Wilkins, 1956.

Correlative Neuroanatomy and Functional Neurology, 9th ed. JOSEPH G. CHUSID, M.D., Attending Neurologist, St. Vincent's Hospital, New York, AND JOSEPH J. MCDONALD, M.S., M.SC.D., M.D., Dean of Medical Faculty, American University of Beirut, Beirut, Lebanon; formerly Professor of Surgery, Columbia University, New York. Price, paper, $4.50. Pp. 344. Los Altos, Calif.: Lange, 1958.

Review of Physiological Chemistry, 6th ed. HAROLD A. HARPER, PH.D., Associate Professor of Physiological Chemistry, University of California School of Medicine, San Francisco; Biochemist Consultant to Metabolic Research Facility, U. S. Naval Hospital, Oakland; Biochemist Consultant to St. Mary's Hospital, San Francisco. Price, paper, $4.50. Pp. 376. Los Altos, Calif.: Lange, 1957.

Orr's Operations of General Surgery, 3rd ed. GEORGE A. HIGGINS, M.D., F.A.C.S., Associate Proferror of Surgery, University of Kansas School of Medicine; Lecturer in General Surgery and Surgical Technique, University of Kansas City School of Dentistry; Chief of Surgical Service, Veterans Administration Hospital, Kansas City, Missouri, AND THOMAS G. ORR, JR., M.D., F.A.C.S., Associate in Surgery, University of Kansas School of Medicine; Surgeon, Veterans Administration Hospital, Kansas City, Missouri. Price, $20.00. Pp. 1016, with 1,990 step-by-step illustrations on 835 figures. Philadelphia: Saunders, 1958.

The Psychology of Medical Practice. Marc H. Hollender, M.D., Professor and Chairman, Department of Psychiatry, State University of New York, Upstate Medical Center, and Director, Syracuse Psychiatric Hospital. Price, $6.50. Pp. 276. Philadelphia: Saunders, 1958.

Atrial Arrhythmias, Digitalis and Potassium. Bernard Lown, M.D., Research Associate in Medicine, Department of Nutrition, Harvard School of Public Health; Junior Associate in Medicine, Peter Bent Brigham Hospital, Boston, Mass., and Harold D. Levine, M.D., Senior Associate in Medicine, Peter Bent Brigham Hospital, Boston, Mass.; Assistant Clinical Professor of Medicine, Harvard Medical School. Price, $6.90. Pp. 222. New York: Landsberger Medical Books, 1958.

Modern Clinical Psychiatry, 5th ed. Arthur P. Noyes, M.D., Superintendent, Norristown State Hospital, Norristown, Pennsylvania, and Lawrence C. Kolb, M.D., Professor and Executive Officer, Department of Psychiatry, College of Physicians and Surgeons, Columbia University; Director, New York State Psychiatric Institute. Price, $8.00. Pp. 694. Philadelphia: Saunders, 1958.

Fifty Years of Neurosurgery. A Personal Story. Ernest Sachs, M.D. Price, $3.50. Pp. 186. New York: Vantage Press, 1958.

Aids to Medical Diagnosis, 8th ed. G. E. Frederick Sutton, M.C., M.D. (Lond.), F.R.C.P., Consultant Physician, United Bristol Hospitals; Consultant Physician to the Bristol Regional Hospital Board; Consultant Cardiologist to the Ministry of Pensions; Teacher in Clinical Medicine, University of Bristol. Price, $3.50. Pp. 399. London: Baillière, Tindall and Cox, 1958. Baltimore: Williams & Wilkins, exclusive U. S. agents.

Cancer and the Atomic Age. Clement A. Tavares, M.D. Price, $3.50. Pp. 198. New York: Vantage Press, 1958.

Surgery in Infancy and Childhood. A Handbook for Medical Students and General Practitioners. Matthew White, M.A., M.B., Ch.B., F.R.F.P.S. (Glas.), F.R.C.S. (Edin.), Consulting Surgeon, Royal Hospital for Sick Children, Glasgow; Lately, Barclay Lecturer in Orthopaedics and Surgery in relation to Infancy and Childhood, University of Glasgow; Consulting Surgeon, East Park Home for Infirm Children, and Wallace M. Dennison, M.D., F.R.F.P.S. (Glas.), F.R.C.S. (Edin.), F.I.C.S., Barclay Lecturer in Surgery in relation to Infancy and Childhood, University of Glasgow; Surgeon, Royal Hospital for Sick Children, Glasgow; Paediatric Surgeon, Royal Maternity and Women's Hospital and Stobhill General Hospital, Glasgow. Price, $9.50. Pp. 444, with 266 illustrations. Edinburgh: Livingstone, 1958. Baltimore: Williams & Wilkins, exclusive U. S. agents.

Ciba Foundation Symposium on the Cerebrospinal Fluid: Production, Circulation and Absorption. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Cecilia M. O'Connor, B.Sc., Editors for the Ciba Foundation. Price, $9.00. Pp. 335, with 141 illustrations. Boston: Little, 1958.

SOTHORON KEY, B.S., M.D.
(1873–1958)

Dr. Sothoron Key, a Life member of the Medical Society of the District of Columbia, died, May 28, 1958, at his home, 1901 Wyoming Avenue, N.W. Although ostensibly retired from practice, he kept his office open for several patients until his death.

Dr. Key was born in Leonardtown, Md., January 29, 1873, to Joseph H. and Fanny Baltzell Key. He received his early education at Charlotte Military Academy in St. Mary's County.

From Maryland Agricultural College (now part of the University of Maryland) he received the degree of Bachelor of Science in 1894. Turning to medicine, he enrolled at Columbian (now George Washington University) Medical College and graduated as Doctor of Medicine in 1899. He interned the following year at Providence Hospital and began practice in the District of Columbia in 1900.

Dr. Key was elected to membership in the old Medical Association of the District of Columbia in 1900 and in the Medical Society of D. C. in 1906, becoming a Life member of the latter in 1941. He was formerly a member of the University Club and the Chevy Chase Club.

During World War I he was stationed at Walter Reed Army Hospital.

His wife, Mrs. Augusta G. Kirtland Key, preceded him in death. He leaves a son, Sothoron Key, Jr., of Baltimore, and a sister, Miss Cora B. Key, of Washington.

FRANK ELWIN GANTZ, M.D.
(1897–1958)

Dr. Frank E. Gantz, well known industrial surgeon who had practiced in Washington during his entire medical career, died, May 23, 1958, at Doctors Hospital. His offices were in the Farragut Medical Building.

Dr. Gantz was born, February 4, 1897, in Rapid City, South Dakota, to Jacob S. and Mary Soule Gantz. He attended the public schools of Nome, Alaska and Rapid City, South Dakota, and the Manor School in Stamford, Conn. He began studies for a career in electrical engineering at South Dakota School of Mines and Technology, but engineering proved not to his liking. Deciding to devote himself to medicine, he enrolled in the George Washington University School of Medicine, from which he received his medical degree in 1926. He interned the following year at Providence Hospital.

Dr. Gantz had devoted his practice for many years to industrial and general surgery.

A veteran of World War I, he served as Second Lieutenant in the U. S. Army in 1918. During his Army service he was an instructor in bayonet technic.

He became an Active member of the Medical Society of the District of Columbia in 1929. He was a member of the American Medical Association, the Industrial Medical Association, the Clinical Club of Washington, the George Washington University Medical Society, the Washington Academy of Surgery, and the Society of Railroad Surgeons. He was Past President of the Cosmopolitan Club and a member of the Columbia Country Club, Potomac Post No. 40 of the American Legion, and Rapid City Lodge No. 25 A.F. and A.M.

Surviving him are his wife, Mrs. Katherine Fry Gantz; a son, Frank E. Gantz, Jr., who is a third year medical student at George Washington University; and four daughters, the Misses Sally S. and Karen L. Gantz, of the home address, 5085 Lowell Street, N. W., Mrs. Dominic A. Troisi, of Atlanta, Ga., and Mrs. Harry P. Dunn, of Dreux Air Force Base, France. Three brothers and a sister also survive him, Captain Benjamin S. Gantz, U.S.N. (ret.), of Arlington, Va.; Mr. Gardner Gantz, of Lima, Peru; Mr. Saxe P. Gantz, of Custer, S. D.; and Mrs. F. H. Clarkson, of Darien, Conn.

ROY FRANCIS HIGGINS, B.S., M.D.
(1892–1958)

Dr. Roy F. Higgins, who had practiced in Washington for 35 years, died suddenly in Weston, West Virginia, June 20, 1958.

Dr. Higgins was born in Rochester, New York, March 9, 1892. He graduated from Georgetown University School of Medicine in 1918, following which he was intern and resident physician, a year each, at Providence Hospital.

He was formerly Chief of Obstetrics at Providence Hospital and was associated in private practice for many years with the late Dr. J. Thomas Kelley.

Dr. Higgins became an Active member of the Medical Society of the District of Columbia in 1921. He was a Fellow of the American College of Surgeons and a member of the Georgetown Clinical Society.

After practicing in Washington from 1920 to 1955, he moved to Weston, West Virginia, to join the staff of the Weston State Hospital.

Surviving him are his wife, Mrs. Marie Higgins, and a sister, Miss Edna Higgins, of 1748 Lanier Place, N.W., Washington, D. C.

Statement Opposing H.R. 9467—Stubbs

(*Continued from page 434*)

have some form of health protection. This, in itself, is a demonstration of the fact that the people can and are willing to provide benefits to meet their needs through programs of their own choice.

Because the phenomenal advance in these programs in the last few years enables us with accuracy to project their progress toward early and successful provision of health services for the aged, along with other groups of the population, and because it has been repeatedly demonstrated that we cannot retreat from a compulsory program once it is entered, the Blue Shield Medical Care Plans in annual conference this year went on record as being opposed to the enactment of H.R. 9467. Therefore, we respectfully urge that this committee not act favorably on the Bill.

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SEARLE

*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

Book Reviews

An International Symposium on Aldosterone. Edited by Alex F. Muller, M.D., and Cecilia M. O'Connor, B.Sc. Price, $8.00. Pp. 232, with 84 illustrations. Boston: Little, 1958.

This book is the summation of the proceedings of an international symposium on the hormone, aldosterone, sponsored by the Clinique Therapeutique of the University of Geneva and the Ciba Foundation in Basle. The foreword is written by Prof. R. S. Mach, Chairman of the Symposium, and the book is edited by Alex F. Muller, M.D., and Cecilia O'Connor, B.Sc.

Each of the 13 chapters is a presentation by a world-famous endocrinologist or steroid chemist and is followed by an open discussion of the paper. The last chapter presents a general discussion and summation of the entire symposium.

The articles encompass studies on the excretion, extraction, and identification of aldosterone in the urine and the effects of aldosterone and other adrenocortical hormones on animals, both under normal and abnormal salt-loads. There are also discussions of the difference between aldosterone and other adrenal steroids, as well as an attempt to localize the functional zone and site of production of aldosterone in the adrenal gland. Other presentations relate to the effect of alterations in intra- and extracellular volume, alterations in body position and activity, and the time of the day on aldosterone secretion and metabolism. The subject of primary aldosteronism (Conn's syndrome) and the relationship of aldosterone to edema, with a special comment on alterations of aldosterone excretion in pregnancy, are mentioned.

The book contains much new material and is probably one of the first on the subject.

Although there were several references throughout the book to the clinical application of aldosterone metabolism and excretion, I think this book will be of much greater value to the research endocrinologist and physiologist than to the clinician.

Adolph Friedman, M.D.

Steps for Today toward Better Mental Health. Report of the 1957 National Health Forum conducted by the National Health Council, March 20, 21, 22, in Cincinnati, Ohio. Pp. 118. New York: National Health Council, 1957.

This report is a condensation of the papers given at the National Health Forum, the title of which in 1957 was "Better Mental Health—Challenge to All Health Services." The vast areas covered by the numerous papers can obviously not be reviewed adequately, but a brief outline of the general purpose and scope of the Forum and a brief mention of the topics covered should entice all of those interested in mental health to at least refer to this collection of papers for a background and starting point for attacking the tremendous problems associated with mental health.

In the foreword to the report, it is mentioned that the Forum was designed to help each of the Council's 59 member organizations to identify its special opportunities and responsibilities for action in a wider and more exacting mental health movement. The foreword also states that the Forum had decided to concentrate on steps for today that all in health services may take toward the mental health target, such a target being defined by Margaret Mead, President of the World Federation for Mental Health, in one of the opening speeches of the Forum. In the closing session of the Forum, Dr. Paul V. Lemkau stated that the Forum produced "a welter of ideas." This, however, is somewhat of an understatement if one attempts to browse through the entire report. At its close the foreword expressed the hope that the report of the 1957 Forum would "help more and more of those giving health services, whether in professional or volunteer capacities, to put 'available tools to work' to prevent and mitigate mental and emotional ills to the end that we all may advance toward that which we call mental health."

The actual report itself is divided into 5 sections. The first of these sections is devoted to the addresses given at the opening session, the Forum dinners, and 2 luncheons. Entitled, "Better Mental Health—Challenge to All," it presents papers by Francis J. Braceland, M.D., Harold D. Lasswell, Ph.D., Margaret Mead, Ph.D., the Hon. G. Mennen Williams, David B. Allman, M.D., and Jack R. Ewalt M.D. These papers provided a backdrop of fact and philosophy for the rest of the discussions at the National Health Forum and are excellent general summaries of the ways in which psychiatric knowledge, if broadly applied, can positively influence individual and community health, including national mental health.

The second section, "Helping People to Meet Crises," contains the opening keynote speech by Dr. Winfred Overholser and 5 panel discussions. The following topics are covered: (1) Factors Contributing to Causes of Mental Illnesses and Health, (2) When to Call the Psychiatrist, (3) Dealing with Mental and Emotional Aspects of Varied Illnesses and Disabilities, (4) The Convalescent from Mental Illness Returns to Community Life, and (5) Everyone's Stake in Improving the Care Given the Mentally Ill.

(Continued on page 40)

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References: 1. Groskloss, H. H., et al: Clin. Med. 2:885 (Sept.) 1955. 2. Goldsmith, J. W.: Minnesota Med. 40:99 (Feb.) 1957.

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Book Reviews

(*Continued from page 38*)

The third section is entitled "Promoting Mental Health." Once again there were five panel discussions under the headings: (1) In the Family, (2) In the Schools, (3) In Industry, (4) In-service Training in Good Mental Health Procedures for Health Workers, and finally (5) Mental Health Technics for Health Educators and Public Relations Personnel.

The fourth section, "Community Action for Mental Health," consists of 4 panel sections: (1) Community Self-study of Mental Health Needs and Facilities, (2) Creating a Community Climate Conducive to Mental Health, (3) The Influence and the Role of the Mass Communications Media, (4) Education and Career Development to Meet Mental Health Personnel Needs.

The last section, entitled "Toward New Horizons," is a general summary of the symposium. It consists of 3 papers: "Observations on an Expanding Outlook," by Fillmore H. Sanford, Ph.D.; "Avenues through Religion," by the Rev. George C. Anderson, and "Advancing Today and Tomorrow," by Paul V. Lemkau, M.D.

This report is an interesting review of the broader aspects of mental health and its place within the narrower fields of medical practice. Physicians and psychiatrists will find these papers refreshing to read in their leisure time. However, as suggested in the foreword, condensations are best read one at a time, because, swallowed whole, they would be quite indigestible. Each one provides excellent food for thought.

Henry R. Lyons, M.D.

The Essence of Surgery. C. Stuart Welch, M.S., M.D., Ph.D., and Samuel R. Powers, Jr., A.B., M.D., M.Sc.D. Price $7.00. Pp. 320, with 50 illustrations. Philadelphia: Saunders, 1958.

The authors present a very clear and concise picture of the fundamentals involved in surgery. This is applicable not only to general surgery but to all of the surgical specialties.

The text begins with a brief but adequate chapter on the history of surgery from antiquity to modern times. Surgical injuries are divided into three basic forms: Loss of Body Tissue, Loss of Body Fluids, and Infection. All aspects are covered in these chapters, and with this in mind the management of many problems are simplified and facilitated in the chapters on pre- and postoperative care.

The portion on Surgical Technic covers everything from asepsis and hemostasis to sponge counts and the choice of incisions. Aspects of reconstructive and extirpative surgery are briefly reviewed, but this field is too vast to be adequately spanned in the space allowed. Physiologic surgery and anesthesia are interestingly discussed in the final 2 chapters.

(*Continued on page 41*)

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Book Reviews

(*Continued from page 40*)

Although there is little new presented in this book, a great deal of effort has gone into the portions on the fundamentals of surgery and nonoperative surgery, regardless of the specialties. The reviewer feels that this text should be an essential part of every surgical house officer's or resident's library, and should serve as a ready source of reference to those in practice, and particularly those engaged in teaching.

Philip Burka, M.D.

The Relation of Psychiatry to Pharmacology. Published for the American Society for Pharmacology and Experimental Therapeutics. Abraham Wikler, M.D. Price, paper, $4.00. Pp. 322. Baltimore: Williams & Wilkins, 1957.

This compilation of data dealing with the effects of drugs in psychiatry contains material chiefly about actions of insulin, carbon dioxide, barbiturates, and other anesthetics, amphetamine and methamphetamine, pipradol, chlorpromazine, reserpine, meprobamate, azacyclonol, d-lysergic acid diethylamide and mescaline. Incidental consideration is given to epinephrine, norepinephrine, acetylcholine and methacholine, pituitary-adrenal hormones, morphine and other potent analgesics.

The 889 reference items with alphabetical listing of authors covers relevant English, French, and German publications mainly from 1930 through 1956. The book is adequately indexed.

The first major section of this treatise refers to "The Effects of Drugs on Human Behavior." Under this are considered therapeutic procedures, diagnostic and prognostic testing procedures, and the production of "model" psychoses. The second section considers "Theories and Mechanisms of Drug Action." Here are treated: (1) an operational view of causal explanation of behavioral change; (2) biochemical aspects; (3) neurophysiological aspects; and (4) psychological aspects.

Under General Conclusions the author states that the relation of psychiatry to pharmacology may be epitomized as a joint effort in the search for "pattern specificity" in the actions of drugs. He also cites the urgent need in psychiatry for "properly controlled studies on the comparative effects of a variety of drugs upon the behavior of varied, but carefully selected, homogeneous groups of subjects, under varied but standardized experimental conditions, and with varied but specified activities of the observer."

Dr. Wikler cites freely divergent views on most topics. For someone seeking a textbook on the subject, this might be confusing. By the same token, however, this work must be judged a detailed and stimulating reference source, valuable for the psychopharmacologist and for others interested in psychiatric research.

Manson B. Pettit, M.D.

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FINNERTY, F. A., Buchholz, J. H. and Tuckman, J.: J.A.M.A. **166**:141, Jan. 11, 1958.

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MANAGEMENT OF DIABETES MELLITUS WITH CHLORPROPAMIDE*

Preliminary Report

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CHLORPROPAMIDE† is a new oral hypoglycemic agent. Its chemical name is N - Propyl - N′ - (p - chloro - benzenesulfonyl) urea. The structural formula (figure 1) is similar to other sulfonamide derivatives which have been observed to have a blood sugar lowering effect.

Chlorpropamide is quickly absorbed. Animals given a single oral dose of 50 mg. per Kg show a 20 per cent fall in blood sugar within 3 hours (figure 2). Observations on the sulfonylureas as a group by Loubatieres[1] and La Barre and Reuse[2] in France and Colwell et al[3] in this country have indicated the pancreas as the organ of stimulation. However, to date no specific type of activity has been ascribed to chlorpropamide.

The purpose of this investigation was to disclose the antidiabetic properties of chlorpropamide, its therapeutic effectiveness, and the presence or absence of significant side-effects. In particular, we wished to observe its performance in a group of patients classified as "tolbutamide secondary failures," that is, patients who lost responsiveness to tolbutamide after a variable period of satisfactory control.

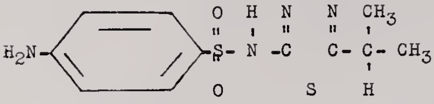
METHOD OF STUDY

Diabetic patients who were taking insulin, those inadequately controlled with tolbutamide, and an occasional patient who had voluntarily discontinued all treatment for more than a year were used. The first few patients were hospitalized, but as we became more familiar with the drug it was given to clinic and ambulatory private patients. Diet was prescribed according to optimal caloric requirements.

---

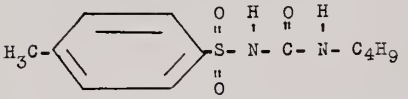
* From the Diabetic Clinic, George Washington University Division, District of Columbia General Hospital, Washington, D.C., and the Medical Department of Prince Georges General Hospital, Cheverly, Md.

† The chlorpropamide used in this study was supplied through the courtesy of Dr. D. G. Iezzoni of Chas. Pfizer & Co., Inc., Brooklyn, N.Y.



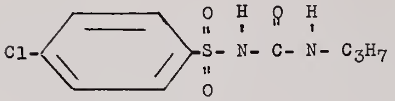
p-aminobenzolsulfonamide isopropylthiodazole

(IPTD)



1-butyl-3-p-tolylsulfonylurea

(Orinase, tolbutamide)



N-Propyl-N'- (p-chlorobenzenesulfonyl) urea

(Diabinese, chlorpropamide)

FIG. 1. Structural formulae of hypoglycemic sulfonamide derivatives.

In the hospital fractional urinalyses for sugar and acetone were made by the ward nurses before meals and at bedtime. Each test showing more than a trace of sugar (Clinitest* modification of Benedict's test) was covered by an injection of regular insulin ranging in dosage from 5 to 20 units depending upon the percentage of sugar present. In this way we were able to prevent ketosis and at the same time observe the degree of effectiveness of chlorpropamide. As an added parameter of control, blood glucose[4] was estimated before breakfast each day. In those cases showing a good response to the drug the dose was reduced by decrements to the minimal effective amount.

Chlorpropamide was considered effective if the resulting average daily fasting blood sugar was substantially reduced and was in the region of 200 mg. per cent or below. Urine tests were required to be negative or show less than ¼ per cent sugar. When at least 3 days' observation indicated these requirements had been attained, patients were given a supply of medication and discharged to be followed in the outpatient clinic. Particular stress was made on the need for frequent urine tests at home, and a written record of the results was requested. On returning to the clinic, the patient was examined, home tests reviewed, and the fasting blood sugar for that day determined. If most of the urine tests were reported negative for sugar and if the blood sugar was below 120 mg. per cent the dose of chlorpropamide was reduced by half. If the blood sugar was between 120 and 175, the dose was maintained the same. If it was above 175 the dose was increased by 0.25 Gm. increments until the blood and urine glucose levels dropped to the above-mentioned control levels.

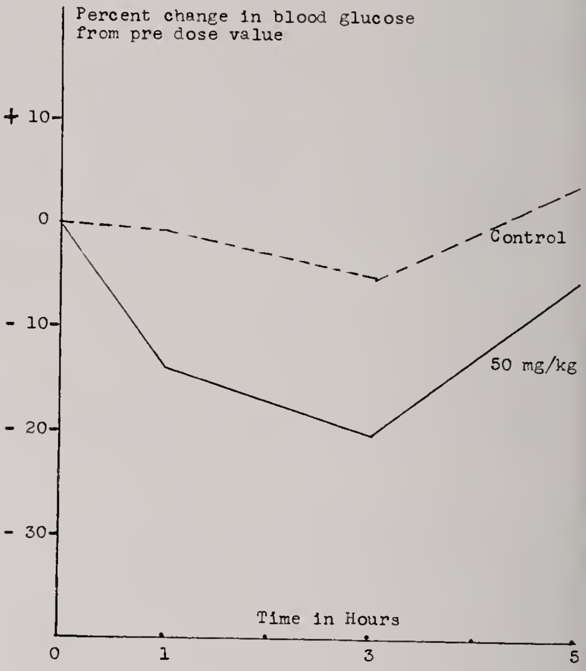


FIG. 2. Effect of a single oral dose of chlorpropamide on fasting blood glucose values in male albino rat.

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* The Clinitest apparatus and tablets are manufactured by The Ames Co., Inc., Elkhart, Indiana.

TABLE 1

Patients Satisfactorily Controlled with Chlorpropamide after Tolbutamide Secondary Failure

Patient	Age	Duration of Diabetes, Years	Dose Gm./Day		Average Blood Sugar (Fasting) under		Duration of Treatment, Weeks	Side-effects
			Tolbutamide	Chlorpropamide	Tolbutamide	Chlorpropamide		
1	57	7	1.0	0.75	208	97	8	Hypoglycemia
2	53	5	2.0	1.0	223	185	4	
3	69	15	1.0	0.5	213	132	14	Hypoglycemia
4	44	8	1.0	0.5	210	137	10	
5	53	6	0.75	0.5	188	146	12	Hypoglycemia
6	45	11	2.0	1.0	260	200	8	Rash
7	68	2	1.0	0.5	205	88	14	
8	61	5	1.5	1.0	255	169	5	
9	36	1	1.0	1.0	354	203	4	
10	62	6	1.5	1.0	242	202	14	
11	57	4	2.0	1.0	191	140	4	
12	55	1	1.0	1.0	226	145	10	
13	67	4	1.5	1.0	230	179	11	Nausea and chest pain
14	55	4	1.0	1.0	217	189	14	
15	57	11	1.5	0.5	248	155	12	Chest pain
16	63	5	2.0	1.0	298	145	8	

In a similar manner the patients not hospitalized were given the drug and requested to test the urine at home at least twice daily. Those taking insulin were given chlorpropamide concomitantly. Usually the dose of insulin was decreased by decrements of 10 units as control was maintained by a constant dosage of chlorpropamide until eventually no further injections were necessary. The frequency of visits was decreased as improvement progressed.

Those patients taking tolbutamide but with persistent glycosuria and fasting blood sugar always above 200 mg. per cent were considered not adequately managed. They were placed directly on chlorpropamide and followed in the same manner as above.

DOSAGE

Chlorpropamide was made available in uncoated tablets containing 0.5 Gm. Most patients were started with 1.0 Gm. per day in 2 doses given before breakfast and supper. If this proved ineffective, 1.5 Gm. was given. No patients benefited by increasing the dose to 2.0 Gm. per day. The dose was decreased, usually by decrements of 0.25 Gm., when good control as manifested by lowered fasting blood sugar and negative urine tests was noted.

TABLE 2

Patients Satisfactorily Controlled with Chlorpropamide after Discontinuing Insulin

Patient	Age	Duration of Diabetes, Years	Insulin before, Units	Chlorpropamide Dose, Gm. per Day	Average Blood Sugar (Fasting) under		Duration of Treatment, Weeks	Side-effects
					Insulin	Chlorpropamide		
1	61	8	15	0.5	140	81	6	
2	35	5	30	0.25	286	99	5	Hypoglycemia
3	50	5	20	1.0	188	189	12	
4	58	7	30	0.25	158	42	3	Hypoglycemia
5	64	5	15	0.25	153	92	4	
6	62	5	20	0.5	124	128	6	
7	46	28	35	1.0	220	90	3	
8	49	25	20	0.5	210	125	10	

Several patients were satisfactorily managed with as little as 0.25 Gm. (½ tablet) a day. Most cases required between 0.5 and 1.0 Gm. daily.

TABLE 3

Patients Satisfactorily Managed with Chlorpropamide Not Previously Controlled with Diet Alone

Patient	Age	Duration of Diabetes, Years	Dose Gm./Day Chlorpropamide	Average Blood Sugar (Fasting) under		Duration of Treatment, Weeks
				Diet	Chlorpropamide	
1	41	10	1.0	344	150	8
2	62	12	1.0	188*	110	6

* Persistent glycosuria at this level.

RESULTS

The overall results of therapy with chlorpropamide in this group of patients are presented in tables 1 through 5. A total of 45 patients have been followed for 3 to 14 weeks (as of May 26, 1958). Of these, 26 (58 per cent) showed adequate control. Of particular significance was the good response of patients who showed increasing loss of control with tolbutamide (16 out of 24, or 67 per cent). Another noteworthy feature in the patients classified as "tolbutamide secondary failures" was a good response to a second course of tolbutamide after chlorpropamide was stopped because of side-effects (table 4).

TABLE 4

Patients Responding to a Second Course of Tolbutamide after Discontinuing Chlorpropamide

Patient	Age	Duration of Diabetes, Years	Dose Gm./Day		Average Blood Sugar (Fasting) under			Side-effects of Chlorpropamide
					(1)	(2)		
			Tolbutamide	Chlorpropamide	Tolbutamide	Chlorpropamide	Tolbutamide	
1	55	4	1.0	1.0	255	141	170	Weakness—numbness
2	65	5	1.0	1.0	211	144	130	Disagreeable taste
3	48	1	1.0	1.0	214	202	154	Disagreeable taste
4	76	2	1.5	1.0	200	200	212	Weakness
5	52	3	2.0	1.0	245	214	185	Nausea and weakness
6	62	8	1.0	1.0	185	160	120	Nausea
7	62	8	1.0	1.0	235	254	234	Itching and weakness
8	70	1	1.0	1.0	212	200	212	Weakness

We suspect that those patients who responded to a second course of tolbutamide did so because of a renewed respect for adherence to diet, this in turn brought about because of some disagreeable but not serious side-effects of chlorpropamide.

Two patients who had been taking insulin for more than 3 years remained well controlled after chlorpropamide was discontinued altogether. One of these (figure 3) was convalescing from an acute myocardial infarction. This type of response was reported by one of us[5] for tolbutamide.

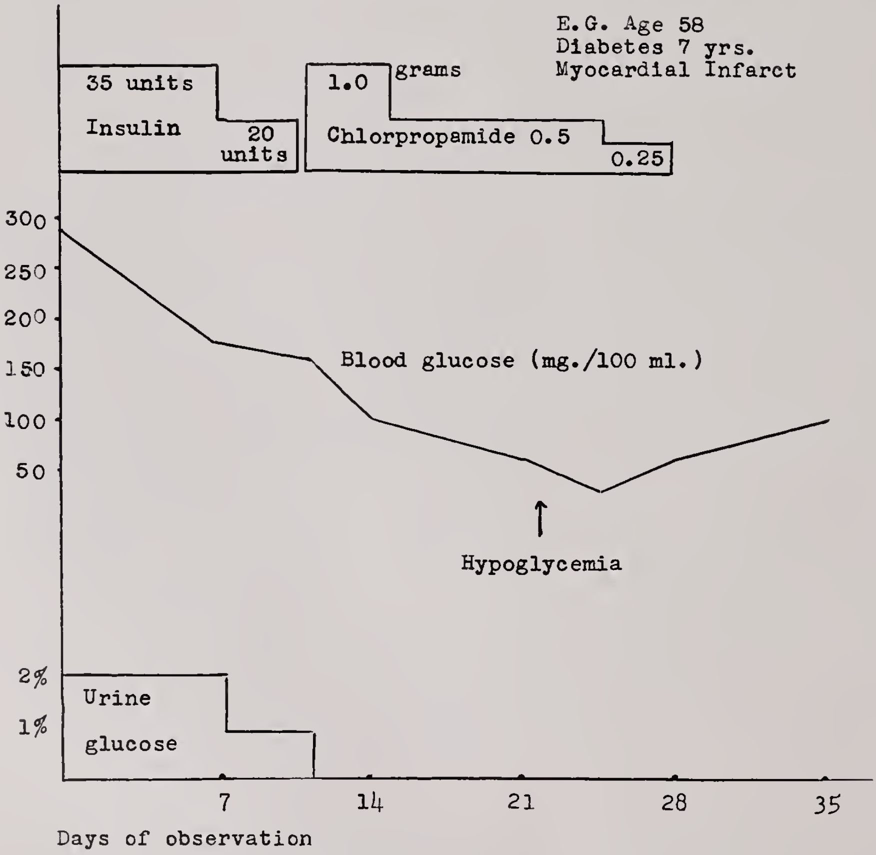

Fig. 3. Good control continuing after stopping of chlorpropamide.

Figure 4 illustrates a successful management of at "tolbuamide secondary failure." This patient developed severe urticaria and hypoglycemia with each type of insulin. He was well controlled with tolbutamide for more than a year. After that period the blood sugar gradually rose and for several months remained more than 235 mg. per cent. At the same time glycosuria appeared and persisted. Within 3 weeks after starting chlorpropamide, blood and urine glucose were approaching control levels. During the next 4 weeks excellent control was manifested both by improved well-being and lack of hyperglycemia and glycosuria.

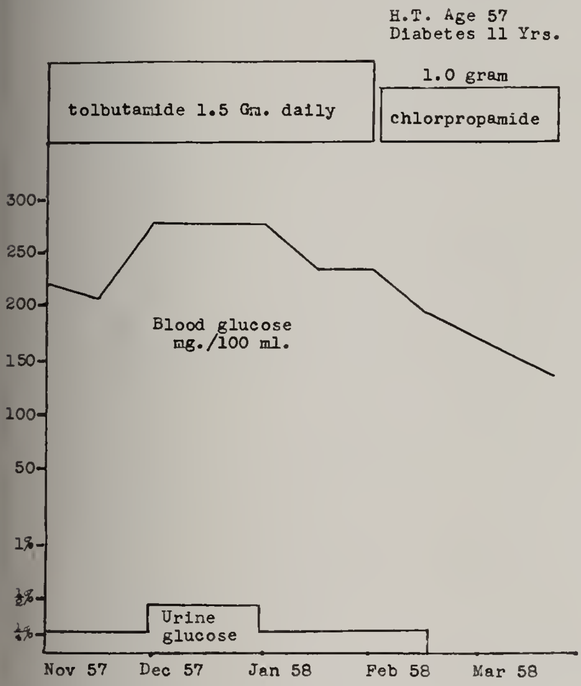

FIG. 4. Good response to chlorpropamide after "tolbutamide secondary failure."

TOXICITY

As a rule, side-reactions to chlorpropamide were not too severe (table 6). One case of leukopenia with a white blood cell count of 2,500 was noted. This was not permanent, and when medication was discontinued the count promptly returned to normal (figure 5). It was our impression that the prolonged use of a 2.0 Gm. daily dose was responsible for this depression of leukocytes. The same patient complained of loss of hair after chlorpropamide had been discontinued. Examination failed to substantiate this disorder.

Hypoglycemic symptoms (anxiety, hunger, sweating) were noted in 5 patients. These never progressed to coma and disappeared promptly with administration of sweet drinks and reduced dosage.

TABLE 5

Patients Previously Controlled with Insulin Not Satisfactorily Managed with Chlorpropamide

Patient	Age	Duration of Diabetes, Years	Insulin before, Units	Dose Gm./Day Chlorpropamide	Average Blood Sugar (Fasting) under		Side-effects of Chlorpropamide
					Insulin	Chlorpropamide	
1	47	27	35	1.0	73	315	
2	37	20	25	1.0	173	400	
3	63	31	25	0.5	192	94*	
4	20	6	50	1.0	443	500	
5	66	9	38	1.0	170	196	Weakness
6	66	26	70	1.0	253	250	Weakness
7	30	1	45	2.0	160	352	Leukopenia
8	72	13	35	1.0	152	56*	
9	56	12	120	1.0	31	353	
10	35	6	55	1.0	320	333	
11	52	4	50	1.0	162	195	

* This level obtained with combined insulin and chlorpropamide therapy but patient requested return to insulin alone.

The most prominent side-effect was weakness, usually of legs, arms, and abdominal muscles. Two of the 7 patients with this complaint had responded as far as diabetic control was concerned, but this symptom was of such severity that the drug had to be stopped. Serum potassium levels performed before and during treatment with chlorpropamide showed no diminution. No studies have been reported to explain this weakness seen in some patients taking chlorpropamide, but high doses of tolbutamide have been shown to depress the polysynaptic reflexes in the spinal cords of experimental animal preparations.[6]

TABLE 6

Side-reactions to Chlorpropamide

	No. of Patients*
Hypoglycemic symptoms (anxiety, hunger, sweating)	5
Weakness	7
Nausea and vomiting	3
Leukopenia (2,500)	1
Itching and rash	2
Disagreeable taste	2

* Of a total number of 45 patients treated.

In the case of 2 patients receiving the drug the appearance of severe chest pain proved to be coronary artery insufficiency. This was coincidental and cleared with treatment while chlorpropamide was continued. In fact, 2 patients with diabetes complicated by acute myocardial infarction were adequately controlled with chlorpropamide while convalescing from this illness.

Two patients with itching, 1 with a maculopapular rash of the thighs and legs, were noted. The latter is still on chlorpropamide, and the rash completely disappeared after concomitant administration of an antihistamine drug.

Two patients had an excellent response to a daily dose of 1.0 Gm. but asked for a change of medication because of a disagreeable sensation of taste. This was described as a "sick, sweet taste even in the lips." In retrospect we believe this could have been avoided by starting with a smaller dose of 0.5 Gm.

TABLE 7

Results of Treatment

Number of patients previously treated with insulin	19
Satisfactory control with chlorpropamide	8 (42%)
Number of patients previously treated with tolbutamide but not well controlled	24
Satisfactory control with chlorpropamide	16 (67%)
Number of patients not controlled on diet alone	2
Satisfactory control with chlorpropamide	2 (100%)
Total number of patients treated with chlorpropamide	45
Satisfactory control	26 (58%)

A depression of thyroid uptake of radioiodine was noted in 6 patients. The range of lowering was 4 to 15 per cent. There were no associated symptoms of hypothyroidism, and this reaction was not considered of clinical significance. No unusual effects on kidneys or liver have been noted to date. The longest period of observation has been 14 weeks. It should be noted that this is preliminary data obtained while experience with use of chlorpropamide was developing and that with further experience and changes in dosage schedules many of the above-described reactions may possibly be avoided.

A summary of the results of treatment of diabetes mellitus with chlorpropamide is presented in table 7.

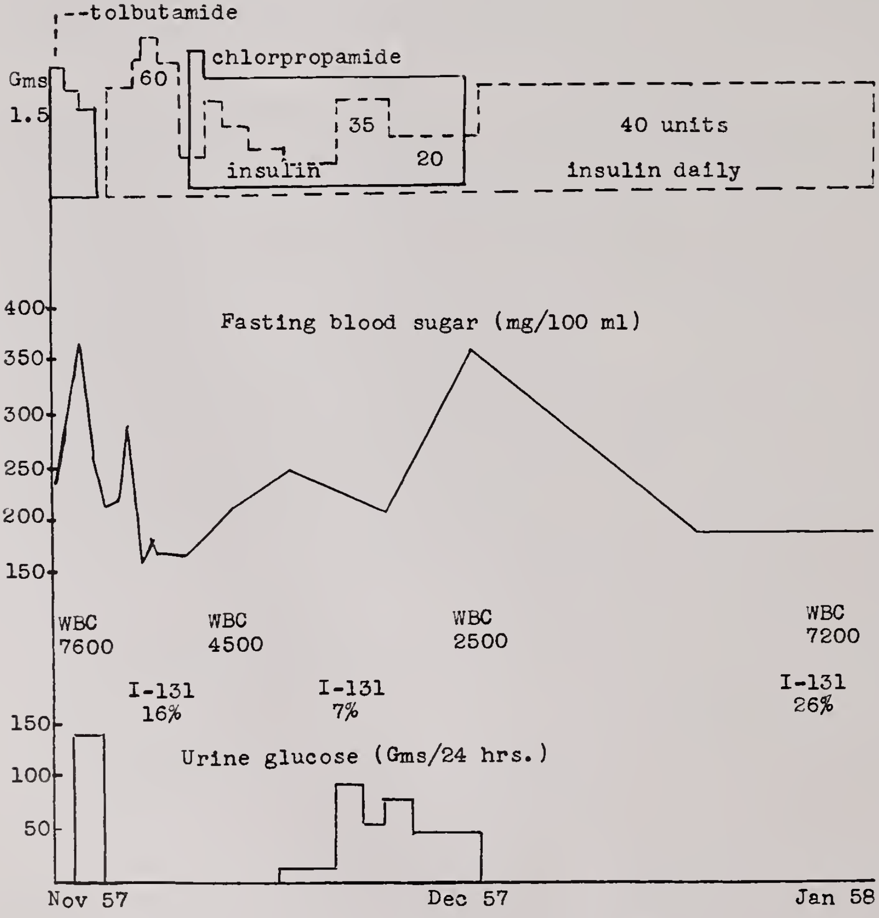

FIG. 5. Failure in control of a brittle diabetic with chlorpropamide. Development of leukopenia with recovery after discontinuing drug.

(*Continued on page 501*)

WATER

EDWARD J. STIEGLITZ, M.D.†
Washington

"Water, water everywhere,
but not a drop to drink."

SO QUOTH the thirsty Ancient Mariner. A parallel in intellectual thirst has beset me in the many meetings with nutritionists, dietitians, students of metabolism, and endocrinologists which I have attended. I cannot recall water being even once mentioned as a nutritional element. Perhaps it is ignored because it is too obvious, too universal, and too lacking in dramatic qualities.

This blind spot has often reminded me of the anecdote about the barfly who bet the bartender that blindfolded he could identify all the ingredients in any mixed drink which the bartender would concoct; if he failed he would pay double for the drink, but if he succeeded he would get it free. The bartender mixed one cocktail after the other; the habitué identified their contents with unfailing accuracy until in desperation the bartender presented the man with an educated palate a glass of water. The man tasted it carefully, rolled it about in his mouth, tried another sip, but was obviously puzzled. Finally he said: "I don't know what this is, but I'm sure it won't sell."

Water appears to have little sales appeal to scientists also.

The importance of water in nutrition and diet cannot be overemphasized. It is important for all ages, but especially to infants and older persons. The dangers of infantile dehydration are known to all. The special importance of water to older persons warrants more attention than it has received.

Of the total weight of the human body, some 70 per cent is water. Intracellular water equals about 50 per cent of the total body weight, and extracellular fluid amounts to about 20 per cent. Although the overall volume of this fluid is relatively constant, water is being continuously utilized; body water is far from being static. The magnitude of water utilization is impressive. It has been estimated, for example, that in 24 hours the volume of saliva secreted ranges from 500 ml. to 1,500 ml. The daily volume of gastric juices is from 1,500 ml. to 2,500 ml. From 100 ml. to 400 ml. of bile, and from 700 ml. to 3,000 ml. of intestinal secretions are poured out daily. Smith[1] has presented data to indicate that as much as 170 liters of water are filtered from the plasma in 24 hours by the kidneys, most of which is reabsorbed by the convoluted tubules.

The movement of such large volumes in various secretions is possible only because the water is conserved and reused again and again. Water is constantly hard at work maintaining the internal milieu in equilibrium. Clearly, even relative inadequacy of supply (dehydration) can have profoundly deleterious consequences.

Excessive ingestion of water is rare. The ability of the human organism to eliminate excesses of water has far greater margins of safety than its capacity to conserve fluids when intake is inadequate. Certain species of animals such as the desert rat, the hamster, the camel, and many reptiles adapted to living in arid deserts require minimal amounts of water. However, man is not a desert rat.

SOURCE OF BODY WATER

Practically all water is normally acquired by absorption from the alimentary canal after oral ingestion. Some water is obtained from foods which are not fluid at the time of their ingestion but contain water in their composition. Other water is the end-product of combustion of food elements. However, the water derived from solid foods and metabolism can be largely ignored in considering water intake in relation to many of its functions because the continuous insensible loss of fluid through respiration and insensible perspiration usually exceeds the volume ordinarily obtained from these sources.[2]

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† Deceased

The minimal intake of water necessary for health varies with the rate of water loss. As this is highly inconstant and is greatly affected by activity and environmental temperature, any standard must be flexible. Our best guide to the desirable volume of fluid intake probably is the amount of water available for the secretion of urine. The total intake of beverage fluids should be such that the 24-hour urinary volume is not less than 1½ liters. In hot weather this may mean the fluid consumption of 3 liters or more, but in ordinary cool weather, with moderate activity, an intake of approximately 2 liters can be considered near the optimum.[3]

Small amounts of liquid taken frequently are preferable to large quantities at any one time, especially for older patients. This puts less strain on the absorptive mechanisms of the alimentary canal, and on the circulation. When nocturia is a problem, either because of prostatic obstruction or because dependent edema accumulates during the day, most of the fluid should be consumed during the early part of the day.

Many older individuals insist that they do not "like" water. It is feasible to substitute flavored beverages such as ginger ale, tea, either hot or cold, coffee, soups, fruit juices and the like for plain water. It is not difficult to make fluids interesting to the palate.

Its Role in Cellular Metabolism

The role of water in cellular metabolism is a highly complex one.[4] In the first place, it is a solvent for active metabolites, minerals, and the enzymes, mediating all reactions which take place within the body. It is the basic media of the internal milieu. Both the intracellular and intercellular content of the body is affected by the hormonal secretions of the thyroid, gonads, and adrenal cortex. Thyroglobulin releases bound water; the cortical steroids and androgens cause water (and sodium chloride) retention.[5, 6]

Adequate water available for perspiration is necessary for the control of body temperature in hot environments. Since sweat contains not only water but also salt, and salt cannot be synthesized by the body, any prolonged exposure to heat requires replacement of the salt so lost. Elderly patients do not tolerate chloride depletion; sudden collapse, sometimes with coma, is not uncommon among old people during or after a protracted spell of hot weather. Those on diets restricting sodium chloride intake are particularly vulnerable. Unless contraindicated, additional salt can be part of the diet; pretzels, anchovy paste, salty crackers, bacon (crisp), etc. as snacks can supply the extra salt. If a high sodium intake must be avoided, enteric-coated potassium chloride, 3 to 6 Gm. per day, are valuable prophylactically in avoiding dangerous chloride depletion. Military medical studies indicate that approximately 12 Gm. of NaCl are required daily by those moderately active in tropical climates. Men doing hard manual labor in hot jobs, such as in a rolling mill, require considerably more, but such conditions rarely apply to older people.

Fever is associated with retention of water. Fever is increased if water is not available; dehydration alone may cause fever. With a fall in temperature to more normal levels an abrupt release of the retained water causes profuse sweating and diuresis. A similar release of water held as occult edema occurs with the onset of menstruation. Premenstrual intoxication, with all its attendant discomforts of edema, breast soreness, irritability and cephalalgia, is preventable by the administration of diuretic ammonium nitrate.[7] Relief of a severe episode of migraine is also associated with profuse diuresis of water retained during the attack.[8]

ITS ROLE IN ALIMENTARY TRACT

Water plays significant roles in all the functions of the alimentary tract. It is necessary for the secretion of saliva and for the gastric-duodenal-jejunal secretions. The absorption of foodstuffs depends upon water being available as a solvent. Constipation, a common complaint of older people, is most frequently due to an inadequate intake of fluid. It has been my experience that almost all instances of constipation (about 98 per cent) are due to either an inadequate intake of fluids and insufficient consumption of bulky residue or overemptying of the colon and sigmoid from habitual catharsis or enemata. It must not be forgotten that the character of that which comes out is determined almost solely by the character of that which goes in. Because water is such an extremely important element in the proper functioning of the colon, which normally reabsorbs water from the liquid material from the ileum, wetting agents such as dioctyl sodium sulfosuccinate have proven highly effective in controlling constipation in the elderly who so often drink too little water. If the body is short of fluids, the colon reabsorbs every drop of water it can; consequently the stools become hard and dry.

One effective method of maintaining a relatively adequate nutrition in cases of anorexia is to see that food is easy to eat. Water is a useful vehicle; people will drink their nourishment when they decline to take the trouble to eat it. Chewing is work which the asthenic often prefer to avoid. Patients with poor appetites will eat ice-cream or apple sauce but reject a squab or artichokes because these are just too much trouble to eat. Furthermore, there are occasions which may modify the ancient proverb, "One can lead a horse to water, but one cannot make him drink," to read, "One may lead a horse to water and one can make him drink, if one salts his oats." In the presence of anorexia the use of salty hors d'oeuvre type of snacks, plus food suspended in water, such as milk, eggnogs, and the like, often improve nutrition to the point where a more usual diet becomes acceptable.

RENAL ELIMINATION

Water in adequate amounts is essential to renal elimination. Inadequate water intake is frequently a factor in aggravating hypertension when associated with renal impairment. It is much more work for the kidneys to secrete a small volume of highly concentrated urine than to secrete a larger volume of more dilute urine. A habitually inadequate fluid intake is equivalent to asking the renal parenchyma to work under stress continuously. Work performed by the kidneys in elaborating a normal urine requires approximately 0.8 kilocalories in 24 hours. This measure of work is least when the 24-hour volume is approximately 2.4 liters.[3] At volumes greater or less than this, and particularly at volumes under 1 liter per 24 hours, renal work is increased markedly. Kidneys with adequate reserve capacity respond to conditions of water deprivation, such as imposed by the concentration test of Fishberg[9] by excreting more solute per unit volume of urine with an increased specific gravity. The failure of diseased kidneys to concentrate solutes is proportionate to their functional adequacy. Thus, when prior renal disease or the inevitable vicissitudes of existence without overt disease have impaired the ability of the kidneys to concentrate urine, a liberal fluid intake becomes an imperative necessity, not merely desirable.

Edema can be considered a defense mechanism. It is not a wholly undesirable phenomenon. Edema fluid holds much toxic metabolic débris in solution and out of the circulation. This is applicable whether the edema is of nutritional origin, due to cardiac compensation, or is the result of nephrotic failure. The toxicity of edema fluid is particularly significant to the management of edema. Diuresis, no matter how induced, causing subsidence of edema, creates a systemic intoxication. Patients feel much sicker during the subsidence of extensive edema than they do during its accumulation. They complain of anorexia, nausea, asthenia, tachycardia, vertigo and dyspnea. The longer dependent edema has persisted, as in chronic cardiac decompensation, the more toxic metabolic débris accumulates in the edema fluid. Therefore, it is vitally important to cover the period of diuresis with an adequate, in fact, a liberal fluid intake, even though the subsidence of the edema may be slowed thereby. Patients are thus less injured by intoxication of mobilized edema fluid.[10]

Water is the safest, most effective, and least expensive diuretic available. Like alcohol, it presumably causes a temporary lowering of the pituitary production of antidiuretic principle, thereby depressing tubular reabsorption. Digitalis has no diuretic effect in the absence of cardiac disease.

There are occasional cases of renal disease induced by long-continued, habitually inadequate water intake. These may occur in relatively young individuals as well as in the elderly. Vanity and distress over some puffiness about the ankles has induced several patients to cut their daily consumption of liquids to an unwise minimum.[11] Routine inquiry into the patient's habits, and especially anent their habitual consumption of fluids, is more often than not diagnostically revealing.

Conclusion

Finally, we all recognize that sweat is the universal fertilizer contributing to growth of ideas, research, institutions, and personalities as well as plants. As clinicians, treating patients and not just their diseases, it is up to us to insure that they have the water to sweat with.

BIBLIOGRAPHY

1. Smith, H. W.: The Physiology of the Kidney. New York: Oxford, 1937; The Kidney: Structure and Function in Health and Disease. New York: Oxford, 1951.
2. Peters, J. P.: Body Water: The Exchange of Fluids in Man. Springfield, Ill.: Thomas, 1935.
3. Newburgh, L. H.: The significance of the Extra-Cellular Fluid in Clinical Medicine. Ann Arbor, Mich.: Edwards, 1946.
4. Statland, H.: Fluids and Electrolytes in Practice, 2nd ed. Philadelphia: Lippincott, 1957.
5. Dorfman, R. I., and Shipley, R. A.: Androgens: Biochemistry, Physiology and Clinical Significance. New York: Wiley, 1956.
6. Strauss, M. B.: Body Water in Man: The Acquisition and Maintenance of the Body Fluids. Boston: Little, 1957.
7. Stieglitz, E. J., and Kimble, S. T.: Am. J. M. Sc., 1949, **218**, 616.
8. Stieglitz, E. J.: Ibid., 1935, **189**, 359.
9. Fishberg, A. M.: Arch. Int. Med., 1926, **38**, 259.
10. Stieglitz, E. J.: Ann. Int. Med., 1932, **6**, 406.
11. Stieglitz, E. J., in Stieglitz, E. J., editor: Geriatric Medicine: Medical Care of Later Maturity, 3rd ed. Philadelphia: Lippincott, 1954, chap. 37.

ROENTGEN RAYS—HAZARDS AND SAFEGUARDS*

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INTRODUCTORY REMARKS

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The subject "Roentgen Rays—Hazards and Safeguards" as a topic for a panel discussion is exceedingly timely in view of the increased concern of the public and the medical profession as to the potential damage incident to the medical use of X-radiation in the diagnosis and treatment of disease.

It must be remembered that the medical uses of X-rays are but a part of the total problem of world exposure of the population to ionizing radiation. In listening to this discussion you may become somewhat confused as to technical details and seemingly controversial points of view expressed by the several panelists. In order to minimize this, I would suggest that throughout this entire discussion you keep in mind the following concepts of the problem as far as radiation exposure is concerned:

1. The concept of exposure to a large segment of population as contrasted to one individual.
2. The concept of somatic versus genetic damage.
3. The concept of radiation dosage to large volumes of tissue (total body radiation, for instance) as contrasted to radiation to small volumes of tissue.

Over and above all this the practical application of this information as applied to the individual patient is simply a decision on the part of the physician as to whether or not the information to be gained by the examination required justifies the risk.

The members of the panel are exceedingly well qualified to present this problem to you.

DIAGNOSTIC X-RAYS FROM THE VIEWPOINT OF A GENETICIST

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Among the many consequences of the advent of the atomic era in 1945 is the growing awareness of the genetic effects of radiation on human populations. Despite the very rapid development of genetic knowledge since the rediscovery of mendelism in 1900, it is still not possible to predict accurately the genetic hazards of the increased exposure to radiation of human reproductive cells, which are almost inevitable as nuclear energy is increasingly utilized as a source of power. The resulting lack of harmony in the opinions of different scientists coupled with the emotional nature of a problem which may affect the descendants of any family has led to perhaps an undue amount of public debate and controversy. This controversy has involved debate between individuals in private, in scientific meetings, in the press, and even before Nationwide television audiences. Furthermore, the ramifications of the debate have become important in both national and international politics, as evidenced by the current (June, 1958) international differences in attitudes toward the cessation of nuclear weapons testing. It is unfortunate that the emotional and political overtones have frequently obscured the terribly important fundamental note or question, and that the positions of individuals, of political parties, and even of nations has sometimes been based on emotional, political, or propagandic considerations rather than on the scientific knowledge bearing on the question.

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* Part of a panel discussion presented at the Seventh Midwinter Seminar of the Medical Society of the District of Columbia in Washington, D. C., February 18, 1958. One other panelist was J. Robert Andrews, M.D., Chief of the Radiation Branch, National Cancer Institute, National Institutes of Health. His paper is not included, since the same material was presented by him in the March, 1958 issue of the Medical Annals.

In the past 3 years, there have been 3 statements[1, 2, 3] by scientific groups convened for the express purpose of summarizing the existing knowledge bearing on the question, to recommend areas of research where our knowledge is lacking, and to make recommendations as to policies such as permissible exposure levels. A more recent report[4] on the biologic hazards of radiation by the United Nations Scientific Subcommittee should become available sometime in the latter half of 1958. In addition to its more comprehensive consideration of the problem this report should be of particular value in so far as the political aspects of the question are concerned because of the international character of the committee.

Any present-day discussion of the genetic hazards of radiation should first define whether it is concerned with peacetime or wartime exposures. Since the exposures from diagnostic X-rays are insignificant when compared to the probable exposure of survivors of nuclear warfare, this paper will be concerned only with the peacetime exposures. Secondly, it should be emphasized that genetically significant exposures are only those exposures of the male or female reproductive cells before the end of the reproductive period. This immediately suggests that such exposures can be minimized by precautions such as shielding in diagnostic procedures. Thirdly, since we are concerned only with peacetime exposure levels, it follows that we are concerned only with very low doses received at different times before the end of the reproductive period.

The basis for a reasonable attitude toward the genetic effects of diagnostic X-rays is furnished by the answers to a number of questions which may be asked. These questions include the following: Does radiation cause mutations in man? Does all radiation cause mutations regardless of the dose or is there a threshold dose which must be exceeded in order for mutations to result? Is there a recovery of the germ cells or is the genetic effect of radiation cumulative? Are the different stages in gametogenesis in both sexes equally sensitive? Are all mutations harmful? Can the consequences of radiation-induced mutations on human populations be estimated numerically?

There is as yet no convincing data that radiation does indeed cause mutations in man. The largest such study is that of the survivors of the Hiroshima and Nagasaki bombings. Even in this study[5] the numbers of offspring observed are so small that it has been impossible to establish statistically an increased mutation frequency. A significant change in the sex ratio at birth, presumably due to sex-linked lethal mutations, among the offspring of patients who have received large doses of therapeutic radiation has been reported by some French investigators.[6] There are some puzzling features in their discouragingly meager data, and, since a much larger volume of data on laboratory irradiated mice shows no effect on the sex ratio,[7] many geneticists are not yet willing to conclude that a bona fide effect has been demonstrated. In essence, therefore, it follows that essentially all of the data on the mutagenic effect of radiations have been obtained on laboratory plants and animals. Nevertheless, a great deal is known about human genetic mechanisms which are identical to those of more conveniently studied species. The basic similarity of the genetic mechanism in all species studied, both plant and animal, is one of the broadest generalizations in all biology. Hence, although the available evidence is compatible with it, the conclusion that man is genetically different in that radiation apparently does not induce mutations would be very brash indeed. The difficulty is merely that of detection of the increase.

I have recently had occasion to review in considerable detail the evidence bearing on the linearity of the relationship between mutation rate and dose. The most critical evidence in bisexual species deals with sex-linked lethal mutations in Drosophila. The linearity is very good between 25 and 4,000r, which is the experimentally tested range.[8] Again, the statistical proof of a significantly increased rate becomes difficult at doses below 25r, and extremely large and well controlled experiments would be required. Recent evidence in bacteria has demonstrated that the linear relationship extends downward to 8r.[9] Beautiful studies by Marcovich[10] of the X-ray induction of bacteriophage production in lysogenic bacteria have shown that linearity extends downward to doses as low as 0.3r, at which much less than 1 ionization occurs per cell on the average. Although this effect may not be a mutation in the usual sense, it does involve a radiation-induced change at a specific locus on the bacterial chromosome. Finally, since gene mutations are believed to be chemical changes in the structure of the genetic material, desoxyribonucleic acid, it would be expected that a single ion pair could produce mutations as well as other kinds of radiochemical reactions. Thus, despite the paucity of data available for small doses, the almost universal conclusion of geneticists is that the induced mutation rate is proportional to the radiation dose regardless of its size.

The most extensive study of induced mutations in a mammal is Russell's experiment,[11] in which mutations at 7 specific loci have been tested. The manifold results of these studies are too extensive to be considered in detail here, but Russell has convincing data showing that the rate of mutation after X-rays does not decrease throughout the reproductive life of the irradiated males. This observation confirms similar findings from Drosophila studies and supports the conclusion of geneticists that the mutational effects of radiation are cumulative, since there is no recovery or return to the normal mutation rate. It is primarily these last 2 conclusions, that all exposures no matter how small can induce mutations and that the mutational effects of radiation are cumulative, that cause geneticists and others to be concerned over repeated or continuous small exposures of the gonads to radiation.

The data bearing on the questions of the relative sensitivity of different stages in gametogenesis and of the sexes are of recent origin and less extensive than desirable. For the present discussion it suffices to state that premeiotic stages in spermatogenesis are less sensitive than postmeiotic cells and that the effects in females appear lower than the effects of comparable doses to males.

The question, are all mutations harmful, is difficult to answer briefly. If this were true, it would be difficult to account for evolutionary progress which depends upon mutations as the basic source of the genetic variation upon which natural selection acts. A complete answer would involve an extended discussion of heterosis and of population genetics, for example. Space does not permit more than a summarizing statement or two. First of all, natural selection in evolution selects combinations of genes, not individual genes. Any mutations which might be induced by radiation today doubtless have occurred many times in the past and hence have been exposed to natural selection. The genes and combinations of genes surviving in present-day plants and animals have been subjected to natural selection throughout evolutionary time. Hence, the probability is low that a random, radiation-induced or spontaneous change in a gene, i.e., a mutation, may be beneficial. If such mutations do occur, they are rare. Other evidence bearing on this question is supplied by human genetics. For example, it is generally estimated that there are about 500 traits or clinical entities of widely varying severity which have a fairly simple genetic background. Since Stevenson[12] has found 379 such traits in the small population of Northern Ireland, the estimate of 500 total seems reasonable.

Most of our information of human mutation rates is obtained from studies of certain of these genetic diseases. There are also a number of traits with less well-established single gene causations. The frequency of these nearly 400 single gene traits at birth is about 3.5 per cent in Northern Ireland. In addition, there are a number of clinical entities with more complex genetic backgrounds. Hence the conclusion that about 4 per cent of new births are suffering from tangible genetic defects seems well supported. This is, incidentally, twice the frequency assumed in the National Academy report.[1] Since most of the mutations known in man are in this list, it follows that in man mutations are generally harmful.

The numerical estimation of the genetic hazards to human populations is so inexact that most geneticists believe it is unwise to make one, because it is almost certain to be misinterpreted. Nevertheless, it is sometimes informative to make such an estimate. The usual calculation makes use of the doubling dose or that dose which will induce mutations in a frequency equal to the spontaneous or normal frequency. The National Academy report[1] estimates the doubling dose to be in the range of 30 to 80r. Further, the report concludes that the frequency of tangible genetic defects in livebirths is 4 to 5 per cent, of which about half (2 per cent of total livebirths) is of simple genetic origin. If mankind were exposed to a doubling dose generation after generation, this 2 per cent frequency would ultimately increase to 4 per cent. Smaller increases in exposure over the background level would result in correspondingly smaller increases in the frequency of tangible genetic defects. That the problem is a serious one is indicated by Stevenson's estimates[12] that in Northern Ireland 26 per cent of the hospital beds and 0.3 per cent of the total population are fully occupied in the care of patients suffering from congenital and hereditary disorders.

The natural background radiation to the gonads in the United States is estimated in the NAS report[1] to average 4.3r over a 30-year period, and the exposure from medical X-rays is estimated as 3r. The exposure from radioactive fallout is estimated as 0.1r for the same 30-year period if testing of atomic weapons were to be continued at the rate of the past 5 years. It is obvious that, if these estimates are correct, medical X-rays are a far more important cause of mutations than radioactive fallout. It is estimated in the report that the present population of the United States will produce about 100,000,000 livebirths. Two per cent of this number is 2,000,000. If one assumes a doubling dose of 50r, then medical X-rays will cause $3/50$ of 2,000,000, or 120,000 additional livebirths with tangible genetic defects. Although this is a rather small percentage of the total population, it is too large in absolute magnitude to be comfortably ignored by conscientious persons. Furthermore, it must be remembered that the tangible genetic defects may constitute as little as one-fourth of the total genetic damage of radiation to man.

The conclusion seems clear. Medical X-rays do have important genetic consequences. Diagnostic and therapeutic procedures should be developed and improved so as to minimize the exposure to the gonads. The benefits of the medical use of radiation are so great as to require no discussion here. However, the gaining of these benefits is not without its genetic price. This fact should be recognized and taken into consideration. If the benefits to be derived far outweigh the genetic risks involved, the conclusion is obvious. If, however, the benefits can be obtained by some other means, radiation should not be employed. Such weighing of gains and risks has led to the increasingly frequent decisions to abandon the use of mobile X-ray tuberculosis detection units. It is to be hoped that other routine diagnostic procedures will be similarly weighed.

BIBLIOGRAPHY

1. National Academy of Sciences: Biological Effects of Radiation. Washington, D.C.: National Research Council, 1956.
2. Medical Research Council, London: The Hazards to Man of Nuclear and Allied Radiations, 1956.
3. World Health Organization, Geneva, Switzerland: Effect of Radiation on Human Heredity, 1957.
4. United Nations, New York, Scientific Subcommittee: On the Effects of Atomic Radiation, in press.
5. Neel, J. V., and Schull, W. J.: Effect of Exposure to Atomic Bombs on Pregnancy Termination in Hiroshima and Nagasaki. Publication No. 461, National Academy of Sciences. Washington, D.C.: National Research Council, 1956.
6. Turpin, R., Lejeune, J., and Rethore, M. O.: Studies of offspring of parents treated by pelvic radiotherapy, in Proceedings of International Genetics Symposia (Tokyo and Kyoto), 1956, pp. 85–91; published by Science Council of Japan, Ueno Park, Tokyo, 1957.
7. Russell, W. L.: Personal communication.
8. Spencer, W. P., and Stern, C.: Experiments to test validity of linear r-dose/mutation frequency relation in Drosophila at low dosage. Genetics, 1948, **33**, 43.
9. Demerec, M.: Unpublished data.
10. Marcovich, H. M.: Problem of biological action of low doses of ionizing radiation, read before the International Conference on the Peaceful Uses of Atomic Energy. Biological Effects of Radiation, 1956, **11**, 244.
11. Russell, W. L.: Genetic effects of radiation in mammals, in Hollaender, A., editor: Radiation Biology. New York: McGraw-Hill, 1954, **1**, 825.
12. Stevenson, A. C.: Personal communication.

THE RESPONSIBILITY OF THE PRACTITIONER IN TAKING X-RAYS

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The initial responsibility of the practitioner in exposing his patients to radiation for diagnostic purposes, whether this be done personally or by another physician, is to understand fully the recent change in our attitude toward what was often regarded as an innocuous diagnostic procedure. We have heard this evening detailed and factual discussions of the genetic and somatic effects of X-rays; we must recognize the potential danger of low doses of X-rays, but, at the same time, we cannot lose our sense of proportion regarding these dangers and become involved in the hysteria of the times.

As physicians, we are aware that the use of any potentially dangerous modality involves certain risks; every day we balance potential hazards against what we expect to gain from specific procedures in arriving at our decisions. Basically, we have consciously or unconsciously developed philosophies about such things as surgical operations, the use of potentially hazardous medications, and a host of other things. In a given situation, when the physician's philosophy is sound and he has weighed all factors carefully before arriving at a course of action, it can be said that he has used good medical judgment. In the case of diagnostic X-ray examinations, this same type of judgment must be exercised if conservative medicine is being practiced.

The need for such a philosophy has always existed but has become imperative since the advent of the nuclear age. The National Research Council report of 1956, in surveying man's exposure to radiation from all sources, focused the public spotlight on the greatest single source of such exposure, the medical and allied professions. It is thus mandatory that physicians adopt a sound philosophy in the use of X-rays in daily practice so that the medical profession will be above criticism concerning the unwise use of radiation.

The following principles are suggested as the basis for such a philosophy:

1. The X-ray examination is an indispensable tool in medicine, and we have no adequate substitute available. Until other methods are found which accomplish the same purpose its use is mandatory despite its potential for doing harm. The preservation of the health of this generation is our fundamental responsibility.

2. The unqualified statement that "all radiation is dangerous" is equivalent to saying, for example, that "all metal is dangerous." Steel is used in rifle bullets and a surgeon's scalpel; its manner of use determines whether it is used destructively or to better man's life. The negative psychology of the somatic and genetic dangers of radiation must not permeate either the practitioner's or the nonmedical scientist's mind when radiation is being used skillfully for legitimate purposes.

3. Before each exposure of a patient to radiation the practitioner should ask himself, "What significant medical information will be gained from this procedure?" If, for every fluoroscopic and radiographic examination a clear-cut indication exists, the medical profession cannot be criticized for using X-ray procedures excessively. We would then have reduced the medical radiation exposure to the minimal amount necessary for the preservation of the health of the Nation.

4. The physician must realize that the hazards of radiation are not new and that for many years there have been well-organized scientific bodies who have been active in controlling these hazards. Suggested standards of protection for physicians and patients have been outlined by the authoritative National Committee on Radiation Protection in its handbooks. This is a professionally sponsored and operated committee, and its standards have guided the radiologic profession for many years.

Let us turn our attention at this point from philosophy to practical considerations for those who use radiation equipment personally. The rules for minimizing dosage for patients and operators are relatively simple. All fluoroscopes and X-ray units, regardless of size or age, should be surveyed periodically for radiation hazards by a certified radiation health physicist or other qualified person. An X-ray service man is not such an expert. By the use of sensitive radiation detection instruments any leakage of radiation from the X-ray tube or an excessively high radiation output can be detected. The output of the fluoroscope should be known at all times and should not exceed 10 roentgens per minute. The adequacy of shielding of persons about the radiation equipment can also be checked by such an expert.

Fluoroscopic examinations should be avoided and radiography used whenever possible because of the markedly lower dosage resulting from the latter; a fluoroscopic examination of the chest may entail exposure from 10 to 60 roentgens, whereas a similar radiographic examination can be done for less than 1 roentgen. In particular, exposure of children and pregnant women to fluoroscopy should be avoided. The technic of safe fluoroscopic examinations, with minimum dosage to patient and operator, calls for adequate dark adaptation time to avoid prolonged fluoroscopy. The tube current should never be increased to more than 5 milliamperes in order to produce a brighter image; fluoroscopy should preferably be done at 3 milliamperes in order to keep the dosage as low as possible. The presence of a 2 millimeter aluminum filter in front of the tube is mandatory to block out unnecessary skin-damaging "soft" X-rays. To keep the amount of body tissue being irradiated to a minimal volume the shutters should be restricted as much as possible. A timer which automatically cuts off the machine at the end of a pre-set interval is strongly recommended: Time is fleeting in the fluoroscopic room and the problem may be quite absorbing.

For safe radiography, a metal cone to limit the X-ray beam to the exact area of interest should always be used in order that only those tissues suspected of harboring lesions are irradiated. Ideally, every film should have a thin, non-exposed margin about the image in order to graphically depict this. An X-ray tube used without a cone results in whole body irradiation, thus giving unnecessary gonadal and somatic radiation exposure.

Standard technics for exposure and processing should be used in order to prevent retaking of films and thus give unnecessary radiation dosage to the patient.

In addition to protecting his patient the physician should be sure to protect himself and his aides. The use of a lead apron and gloves, in good repair, and other radiation shields is mandatory. Radiation monitors of the film badge type should be worn until it is clearly established that good radiation discipline is being practiced. As a matter of record it may be good policy for the physician to insist on his aides wearing such monitors permanently for his own protection against any possible future claims for radiation injury. This is inexpensive insurance.

All of the above details have become of vital ethical and moral importance to the practitioner. We have come imperceptibly into a period of tremendously increased legal liability due to radiation damage. It does not require a great deal of imagination to foresee the types of malpractice suits that may occur in the future. There will undoubtedly be court tests concerning the physician's liability in presumed cases of miscarriage, stillbirth, congenital deformity or neoplasia linked to relatively low-dosage radiation.

Any ignorance by the physician relative to the details of radiation safety will place him in a rather precarious position on the witness stand. Failure to have had radiation equipment surveyed by a qualified physicist, lack of knowledge of dosage factors, and failure to use standard protective measures will leave him extremely vulnerable for damage claims. Association between radiation and the alleged injury may be on very flimsy grounds, but a confession by the practitioner of ignorance of the accepted standards of protection will not go well with a jury of laymen impressed by a recital of radiation effects such as we have heard here tonight.

The standards suggested in Handbook 60 of the National Committee on Radiation Protection have been used in previous years in court testimony. They are applicable to all radiation installations, not only to that of the radiologist. It is these standards which are now being used as a foundation for legislative codes, regulating radiation in various states. Practitioners with radiation equipment must sooner or later take cognizance of these standards.

As legislation concerning the regulation of radiation exposure becomes more prevalent the physician will be brought increasingly into contact with situations wherein the possibility of suits may occur. If he is to continue the personal use of radiation equipment, he must seek knowledge concerning the use of all recognized safety procedures. The Atomic Energy Commission has used the philosophy of licensing radioactive materials since it began disseminating these materials to the medical profession. Similar proposals have been made by lay persons and nonmedical scientists for all users of X-ray equipment. The profession, by rigorous self-policing, should ensure that its house is in order so that it can assert its own right to develop that type of control program best suited to the interests of medicine. We must take cognizance of our own deficiencies and correct them so that we can face those who criticize us with the full knowledge that what we do is right and that radiation is, in truth, servant to us and that we are its masters.

THE DENTIST'S RESPONSIBILITY IN X-RAY DIAGNOSIS

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The first intra-oral dental film was made around the year 1902 by Dr. Edmund Kells of New Orleans, La. The first commercial dental X-ray machine was made by the Ritter Co., Inc., in 1921. Approximately 80,000 dental X-ray machines are currently in use in the United States. Most operate at a fixed KVP of 65 ± 5. Others provide for a variable kilovoltage with a range of 40 to 90 KVP. In the 20's and the 30's of this century not every dentist had or had used X-ray machines. However, today practically all dentists have and use an X-ray machine in their practice. With very few exceptions dental machines are used for diagnostic purposes only. It is the common practice for dentists to refer their patients who may need radiation therapy to radiologists.

The dental profession has welcomed this new interest on the part of everyone in X-radiation hygiene. Through the leadership of the Council on Dental Research of the American Dental Association all dentists have been encouraged to examine and inspect their X-ray equipment and to bring their technics up to modern standards and to eliminate unnecessary radiation.

In making dental roentgenograms there are basically 2 accepted technics, the short-cone and the long-cone technics. The short-cone technic employs an 8-inch target-film distance. In the long-cone technic the target-film distance runs from 16 to 20 inches. The average complete-mouth roentgenographic study has 16 views, which means 16 exposures. Considering all types of dental equipment now in use, I would estimate that the average patient receives about 50 roentgens when a full-mouth X-ray examination is made. It must be remembered, however, that the average exposure for each film is about 2 seconds and that each separate area is exposed only once. Since the head of the patient is a long way from his reproductive organs, the gonadal dose is low. Then, too, the tissues through which the useful X-ray beam passes in dental X-ray examinations are mature tissues and mostly calcified. It is well known that these mature tissue cells are far less sensitive to X-rays than are young and immature cells.

Through a system of education which encompasses teaching dental students all modern X-ray technics and which reaches the practicing dentist through the dental literature, it is hoped and expected that some dental X-ray equipment now in use will be modernized with a view toward eliminating for the dental patient all unnecessary exposure. Satisfactory complete-mouth roentgenographic examinations can be made so that the number of roentgens for such a study can be markedly reduced. This contribution to the overall radiation problem is being accomplished by instituting newer technics based upon current knowledge of radiation. For instance, the dental program for radiation hygiene includes:

1. Removal of any leakage around the port of the X-ray tube housing by installation of proper lead barriers.

2. If necessary, addition of added aluminum filters to the inherent filtration to bring the total filtration to the equivalent of 2 mm. of aluminum.

3. If needed, the installation of a lead washer with an aperture restricting the area of the useful X-ray beam to a circle 3 inches in diameter as it strikes the film.

4. The use of ultraspeed films to shorten exposure and longer developing time.

5. The installation of new electronic timers on many of the dental X-ray machines so that ultraspeed film can be used.

6. Programs of several local dental societies involving voluntary inspection for the X-ray equipment of their members. If these voluntary pilot studies are successful it is hoped to apply them to all dental societies in the United States.

By the use of these methods and others the dentist can make a substantial contribution to the overall efforts of the health professions to reduce the amount of X-radiation used in diagnosis. The dental profession is aware and is alerted to participate vigorously in these programs to protect patients, dentists, and auxiliary personnel.

One sometimes wonders just how much damage is being done. In a longevity study of dentists conducted by the Bureau of Economic Research and Statistics of the American Dental Association in 1946, and published in 1949, it was found that dentists live about 3 years longer than the average white male of similar age ranges of the population. Also, a 1953 report from the same Bureau, based on studies from 39 State Departments of Health, shows that only 0.2 per cent of dentists died from diseases of the blood and blood-forming organs. These data indicate little if any general effect of radiation on the health of the dentists who operate the 80,000 dental X-ray instruments. Of course, individual dentists have suffered from X-ray burns, especially of their hands, but I am pleased to report that the number has not been great. Many of the victims of disease caused by X-radiation were the pioneer dental practitioners who used X-ray equipment that was not especially made for dental purposes. However, with the advent of the dental X-ray machine and with the newer knowledge of technics and dangers of X-rays the dental profession has made great strides toward reducing the amount of X-radiation to the dental patient and to all dental office personnel.

In conclusion, I want to say that scare headlines and sensational newspaper articles about radiation will do the average patient more harm than good because they encourage the patients to stay away from their dentist and the necessary dental examinations which will save their teeth and preserve their oral health as well as their general health. Therefore, meetings like this are wholesome and necessary. They help to educate all of us in our work so that we can better serve our patients.

CHRONIC COR PULMONALE*

Part II

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IN PART I the following topics were discussed:

- Definition
- Incidence
- Etiology
- Pathogenesis and pathophysiology
- Emphysema (asthma, bronchitis, bronchiectasis)
- Pulmonary fibrosis
  - Hamman-Rich syndrome
  - Radiation fibrosis
  - Pneumoconiosis—silicosis, etc.

Other major forms of chronic pulmonary disease which may lead to cor pulmonale are continued in this part.

ALVEOLAR-CAPILLARY BLOCK

Concerning alveolar capillary block Marks et al[31] state that it has been known for many years that dyspnea of pulmonary origin can occur in the absence of gross abnormalities in the mechanics of breathing. This has been attributed to an alteration of the "alveolar-capillary membrane" impeding the exchange of oxygen through the tissues separating the alveolar air from the hemoglobin within the pulmonary capillary erythrocytes. Although the mechanism of this transfer was a subject of considerable controversy early in this century, it is now generally accepted to be one of simple diffusion.

The failure of arterial blood to attain nearly the same O_2 tension as the alveolar gas has led to the realization that the observed A-a gradient consists of a "membrane" component due to the diffusion process and a "venous admixture" component due to the appearance in the peripheral arteries of blood which has not been in contact with alveolar gas.

The term "alveolar-capillary block" was designated by Austrian et al[32] to mean a syndrome caused by a variety of pathologic processes and characterized histologically by alterations of the pulmonary diffusing surface, i.e., the alveolar-capillary septa, and physiologically by the reduction in the oxygen diffusing capacity of the lungs. The group of subacute or chronic diseases which leads to this syndrome have common clinical characteristics, prominent among which are the diffuse, finely dispersed pulmonary lesions as revealed by X-ray examination and those signs and symptoms which result from the physiologic disturbances.

Baldwin, Cournand and Richards[33, 34, 35] reported on 14 patients with chronic pulmonary disease not associated with emphysema and characterized by alveolar-respiratory insufficiency. They were grouped under the heading of pulmonary fibrosis, a descriptive pathologic term which subsequent studies have shown to be inapplicable in certain instances. The diseases included in this group were scleroderma of the lung, sulphur dioxide poisoning, exposure to asbestos fibers, lymphangitic carcinomatous metastases to the lungs, and pulmonary granulomatosis and fibrosis of unknown etiology.

From physiologic data it was inferred that the mechanics of breathing were not altered, that the distribution of gas in the lungs was not

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abnormal, and that "alveolar-respiratory insufficiency . . . results both from perfusion of large areas of fibrotic tissue which cannot be ventilated and impairment to the adequate diffusion of respiratory gases across a greatly thickened alveolar septa, or reduction in the area of alveolar capillary interface."

Making partial use of the newer technics in a few cases of the pulmonary granulomatosis following exposure to beryllium, Wright and his associates[36] interpreted their observations on alveolar-arterial oxygen tension gradients determined while their patients breathed room air at rest and during exercise as evidence of alterations of the pulmonary diffusing membrane.

Pathologic Considerations. Examination of the lungs has shown involvement and thickening of the alveolar-capillary septa to be the prominent pathologic lesion. The alveolar-capillary septa were found to be invaded by fibrous tissue or by the cellular elements of granulomas. Involvement of various parts of the lung has usually not been uniform, and this inhomogeneity may account for some of the physiologic findings. Some have shown areas of focal emphysema. Involvement of the lymph nodes in those cases with granulomatous diseases has suggested that the pulmonary involvement was only part of a generalized disease.

Symptoms and Signs. In most patients the disease is insidious in onset and marked by increasing dyspnea on exertion and later at rest. Cough is present in all instances and is productive usually of small amounts of tenacious mucoid sputum. Significant weight loss occurs. In the recent history it is not unusual to find febrile episodes with pulmonary symptoms.

The striking physical findings include tachypnea at rest, limited excursion of the thorax, the presence of persistent fine rales heard usually over the lower lobes, and accentuation of the second pulmonic heart sound. Cyanosis significantly is absent or of minimal degree at rest, except in the terminal stages of the disease, but appears rapidly on mild exertion. Clubbing of the fingers is noted occasionally.

Laboratory and X-ray Findings. The usual clinical laboratory findings are seldom abnormal. Polycythemia is seen rarely and is associated with severe right-sided failure.

X-ray films of the chest show involvement of the entire lung field. There is some variation in the size and appearance of the abnormal shadows which are of the nodular, reticular or conglomerate type. Hilar and mediastinal lymph nodes are enlarged in other cases.

Clinical Course. The most common course seems to be a steady progression in the symptoms of pulmonary insufficiency, with increasing dyspnea, cyanosis and inability to exercise. The rate at which these symptoms progress is quite variable, and the interval from the first appearance of symptoms to profound pulmonary insufficiency ranges from a few months to several years. In some of the cases the appearance of irreversible right-heart failure has modified the course and hastened a fatal outcome. Acute respiratory infections occur in some and may be controlled by antibiotics.

Physiologic Observations. An increase in physiologic dead space was noted in most of the cases. By constant and often marked hyperventilation, normal or increased values for effective alveolar ventilation were maintained even in those patients with a very large physiologic dead space.

Studies of the hemodynamics of the pulmonary circulation revealed a mild to marked degree of hypertension in the pulmonary artery in all patients in whom measurements were made during a steady state of mild exercise. The cardiac output at rest was normal or increased in all cases without congestive failure and was significantly decreased in 2 cases when it was measured during cardiac decompensation. The increase in cardiac output during mild exercise was in the expected range.

Increasing disability from this syndrome does seem to be related to the appearance of arterial oxygen unsaturation at rest, and in the final stages to a return of the usually low arterial carbon dioxide tension at rest to normal or slightly increased levels. The most advanced cases have in general a large physiologic dead space and venous admixture, and there appears to be some relationship between the severity of the disease and the degree of reduction of the oxygen diffusion capacity.

Rheumatic pneumonitis. This entity is being diagnosed more frequently now and is thought to be the basic factor in the development of pulmonary arteriolar changes found in advanced cases of rheumatic heart disease. Pulmonary hypertension, secondary to initial stenosis, aggravates the pathologic process, but rheumatic arteritis is an entity unto itself and may result in thickening of alveolar capillary membrane.

Sarcoidosis. McCort and Pare[37] report 6 cases of sarcoidosis as follows: In these patients, followed for a period of 2 to 11 years, there was clinical and/or radiographic evidence of progressive pulmonary fibrosis. In 2 of the patients the findings were confirmed at autopsy. Although sarcoidosis is in general a benign disease, in a small percentage of the patients suffering from it severe pulmonary fibrosis will develop, leading to pulmonary insufficiency and right-sided heart failure. These patients have an increased susceptibility to fatal intercurrent pulmonary infection.

Siltzbach[38] reviewed the cases of sarcoid at Mt. Sinai Hospital from the standpoint of pulmonary fibrosis and cor pulmonale. He found that the type and degree of involvement and the course the lung lesions take largely determine whether the patient will recover or be left with a significant degree of pulmonary insufficiency and cor pulmonale. The number of patients who eventually suffer from respiratory difficulty is substantial, and it is among them that many of the deaths from sarcoidosis occur. The disease is systemic and may affect almost any organ, but sarcoidosis of the lung is recognized as having prime importance in both diagnosis and prognosis. Evidence of mediastinal node or pulmonary involvement at some point in their illness was found in 123 of 134 patients with sarcoidosis seen at Mt. Sinai Hospital over a 9-year period. The records of these patients showed 6 deaths from pulmonary sarcoidosis, in which the immediate cause of death was pulmonary insufficiency. Dyspnea is a handicap to 18 of the living patients and is severe enough to be almost wholly incapacitating in 6.

Three broad chronologic stages, early, transitional, and late, can be recognized in the development of the intrathoracic lesions as shown by the roentgen pattern present on the initial chest film. The early or florid stage has 3 subdivisions, corresponding to 3 distinct patterns seen in the chest films: (1) bilateral symmetric hilar node enlargement, with or without enlargement of the tracheobronchial and paratracheal nodes, (2) widely disseminated or localized fine miliary and occasionally gross miliary nodulation in both lung fields with hilar node regression or persistence, and (3) diffuse fluffy bronchopneumonic patches usually accompanied by some nodal enlargement.

Patients with disease in the transitional and late or fibrotic stages often show disabling symptoms, and 5 of the 6 deaths[38] caused by pulmonary sarcoidosis were in patients with pulmonary lesions in these stages. No treatment is needed for patients with early-stage lesions limited to the mediastinal nodes, because such lesions usually regress spontaneously.

Cortisone and corticotropin generally have a favorable, though temporary, effect on intrathoracic sarcoidosis, and they may be the only means of tiding a patient with severe pulmonary insufficiency over a crucial period. The advisability of the use of cortisone and corticotropin in patients with asymptomatic miliary nodulation or bronchopneumatic patches is still open to question because of their fibrosis-producing action. Pulmonary fibrosis may proceed even while the patient is receiving hormones. Failure to treat the patient, however, may eventually lead to a more severe pulmonary insufficiency than that caused by the fibrosis. The experience in this series shows that early lung infiltrations, even though asymptomatic, may lead to a crippling of respiratory function.

In a study of 22 cases of sarcoidosis with longstanding generalized pulmonary involvement Stone et al[21] found that an occasional patient may have very little functional abnormality or at most mild ventilatory insufficiency secondary to a generalized fibrosis. The majority of patients showed marked functional disturbances secondary to organization of the lung with the resultant development of low-diffusing capacities and/or emphysema. The development of cor pulmonale is to be expected in these patients.

Serial studies of 7 patients treated with cortisone revealed complete restoration of function to normal in 2 patients and partial improvement in 1 patient. The majority became worse functionally following therapy. Cortisone probably accelerated the development of pulmonary fibrosis.

Scleroderma. With scleroderma, which is a systemic disease, pulmonary involvement may precede cutaneous manifestations. The roentgen appearance is distinctive, consisting of a diffuse linear infiltration most noticeable in the lower half of the lung fields. Among 37 patients with scleroderma, Shuford, Seaman, and Goldman[39] found 5 with abnormal chest roentgenograms, all showing the typical reticulated infiltration.

No correlation exists between the severity of the skin changes and the degree of pulmonary or cardiac involvement. Slight dysphagia is usually noted with impairment of peristaltic activity in the distal half of the esophagus, but without stricture.

Cor pulmonale is rare though left ventricular enlargement may occur, presumably from sclerodermatous involvement of the heart. The 3 principal aspects of the pathologic process are (1) degenerative or destructive alterations—fibrinoid necrosis, (2) proliferative changes resulting in masses of dense connective tissue, and (3) inflammatory reaction to the primary connective tissue injury. The most constant lesions are proliferative necrosis.

Oxygen transport is impeded in the lungs. The arterial oxygen saturation is normal or slightly reduced at rest but is greatly decreased after exercise. Pulmonary hypertension may result. The patients frequently die of pulmonary insufficiency before chronic cor pulmonale has a chance to develop.

A second type of lung change consists of subpleural cyst formation, probably caused by the dissolution of alveolar walls, obstructive emphysema, or a combination of both.

Dermatomyositis. Caldwell and Aitchison[40] reported a case of dermatomyositis with extensive pulmonary fibrosis. There was severe pulmonary hypertension and hypertrophy of the right heart. They concluded that the pulmonary hypertension and hypertrophy of the right heart are the result of the degenerative and occlusive changes in the smaller branches of the pulmonary arterial tree. There is some support for this view in the contrast between the enlarged main pulmonary artery branches and the somewhat inconspicuous peripheral vessels seen on the X-ray films of the chest. This would then appear to be an example of the "vascular fibrosis" in the lungs.

Tuberculosis. Papaemmanuel et al[41] found that among 100 patients with chronic pulmonary tuberculosis, 10 per cent had electrocardiographic changes suggesting chronic cor pulmonale. Ten patients were submitted to cardiac catheterization. In 8 patients moderate elevation of the pulmonary arterial pressure was found, while the electrocardiogram showed marked right axis shift but no evidence of right ventricular hypertrophy. In 2 patients in whom the electrocardiogram indicated hypertrophy of both right auricle and ventricle, the right ventricular pressure was markedly elevated. The authors thought that in cases with extensive pulmonary lesions and electrocardiographic signs of right ventricular hypertrophy, cardiac catheterization and determination of intraventricular pressures are necessary before any active therapy is attempted, in order to avoid precipitation of right ventricular failure in the course of the planned therapeutic procedures.

Berylliosis. Pulmonary involvement in berylliosis results from finely divided beryllium compounds. The normal protective mechanism of the upper respiratory tract removes a considerable number of the inhaled particles, but a variable number reach the alveoli. It appears that the less soluble compounds tend to cause chronic berylliosis. The onset of chronic berylliosis may be insidious, with minimal cough and fatigue, but pulmonary insufficiency is soon evidenced by progressive dyspnea and cyanosis. The basic defect in pulmonary function is that of an alveolocapillary block in that there is impaired diffusion of oxygen across the alveolar membrane, the permeability of the latter presumably having been altered by the deposition of beryllium granulomas. Primary emphysema is generally not present early, and ventilatory function is normal. As the granulomatous process develops emphysema becomes a factor.

In a clinical conference Hardy[42] stated that cor pulmonale is a complication in most cases of beryllium disease of any severity and that failure of the right heart is the usual cause of death.

CHRONIC MASSIVE PULMONARY ARTERY THROMBOSIS

Massive thrombotic occlusion of the main pulmonary arteries is a rare condition occurring perhaps once in 5,000 postmortem examinations. This was the experience of Magidson and Jacobson.[43] However, Brenner[44] found 4 out of 100 consecutive autopsies; on the other hand, Ring and Bakke[45] found 21 out of 11,511 consecutive autopsies.

A complete review of the literature in 1956 by Ball et al[46] yielded 200 cases, to which they added 23. Of the latter, 9 were seen in life and 14 were found in the records of 7,000 autopsies.

Usually one associates death with massive pulmonary artery thrombosis, but Brenner in his comprehensive paper on the lesions of the vessels of the pulmonary circulation in 1935 found that as much as 75 per cent of the pulmonary artery cross-section may be occluded before the systolic blood pressure falls, and 90 per cent before death occurs. The prompt development of anastomatic channels between the pulmonary and bronchial arterial branches may provide considerable collateral circulation. Thus it may be that a small chink is all that remains to sustain life, and it is probably the final obliteration of the chink which causes death in many instances.

The major cause of this syndrome is now attributed to embolism rather than a complication of pulmonary arteriosclerosis,[47] chronic pulmonary disease, or mitral stenosis. Trauma, either directly to the chest or as a cause of thrombophlebitis or embolism, has been recognized as etiologic, especially in younger persons. Ring and Bakke[45] think that cases of massive pulmonary thrombosis may be divided into 2 main groups: (1) those superimposed upon a previous pulmonary embolus, and (2) those arising in situ without any previous embolic episode, and hence, autochthonous. It is most difficult to attempt differentiation of these 2 types by pathologic study alone, hence the clinical picture and history are vitally important.

The clinical syndrome exhibits no specific diagnostic features. The following diagnostic triad has been proposed[47]: (1) an episode resembling pulmonary infarction, (2) disclosure of the source of embolism, and (3) progressive right ventricular failure. Certain other clinical features may serve to bring this condition to mind: (1) heart failure of obscure cause in young persons, (2) marked right-sided heart failure, (3) poor response to the usual therapy for cardiac failure, (4) the frequent appearance of a systolic heart murmur, and occasionally a diastolic or continuous murmur, and (5) syncopal attacks or mental symptoms occurring in the course of congestive failure.

Roentgen signs have been proposed by Hanelin and Eyler[48]: (1) dilatation of the pulmonary artery proximal to the block, (2) enlargement and alteration in the contour of the vessel at the level of the thrombus, and (3) decrease in the caliber of vessels distal to the thrombus, resulting in increased radiolucency in the corresponding area of the lung.

Cardiac catheterization led to the first antemortem diagnosis, and, lately, angiocardiography has been used to confirm the antemortem diagnosis. X-ray and electrocardiographic evidence of right ventricular hypertrophy is common.

RECURRENT PULMONARY EMBOLI

Recurrent pulmonary embolism is an infrequent cause of chronic cor pulmonale, but its recognition is important, because it should be reversible. Petch[49] reported one of the earliest cases in 1951. He stated that several cases had been reported prior to his, and added that it is often difficult to distinguish at autopsy between emboli and thrombosis in situ. It seems possible that many of the cases reported at necropsy as examples of pulmonary artery thrombosis may actually have been the result of embolization, since an unexplained or "primary" thrombosis in such a situation is less easy to understand. Some cases recognized as Ayerza's syndrome may have a like origin. The reason why these emboli persist while others disappear does not seem to be established.

Tourniaire et al[50] reported 3 cases of recurrent pulmonary embolism. They noted that acute cor pulmonale due to pulmonary embolism does not always take a fatal course and that recovery may be rapid and complete. In other cases repeated embolization, or thrombosis superimposed on the primary embolus, may produce a subclinical entity, characterized by fever and right heart failure, which sometimes may subside but frequently is progressive and resistant to treatment.

The largest series of cases reported to date was presented by Owen et al.[51] These investigators found 12 cases in 8,000 autopsies carried out over a 20-year period at the Massachusetts General Hospital. In these cases chronic cor pulmonale and congestive heart failure developed as a result of obstruction to the blood flow in the lungs because of multiple and mainly "silent" pulmonary emboli.

In these cases extensive old pulmonary embolism had led to hypertrophy of the right ventricle in the absence of other complicating diseases which might have led to cardiorespiratory impairment.

The clinical picture in this group of patients was usually that of increasingly severe congestive heart failure of undetermined etiology. Dyspnea and cough were frequent symptoms and usually appeared before there was evidence of right ventricular hypertrophy. Five of the 12 patients had at least 1 episode of hemoptysis, but actual infarction of the lung was not an important finding. Right ventricular heart failure, as manifested by pulsating neck veins, enlargement of the liver and extensive ankle edema, appeared late in the course of the illness. Ascites was noted in 6 cases. Cyanosis appeared in 10. Clubbing and polycythemia were encountered infrequently and were only of a slight degree. Common auscultatory findings consisted of accentuation of the pulmonic second sound, gallop rhythm, and harsh systolic murmurs along the left sternal border in the third or fourth intercostal space. X-ray examinations showed relative ischemia of the lung fields in 5 cases and, in most cases, prominence of the main pulmonary vessels and enlargement of the right ventricle. In 11 cases electrocardiograms were available, and 10 showed right ventricular hypertrophy. Right bundle-branch block was not found. All the patients died because of intractable congestive heart failure.

Postmortem examination showed marked hypertrophy of the right ventricle. Relatively insignificant pulmonary infarcts of varying age were found in 5 cases. Extensive emboli of varying sizes, ages, and locations were the most constant findings. In 10 cases 1 or more large branches of the pulmonary artery contained emboli, and microscopically all 12 showed organized emboli in the tertiary branches of both lungs. In 9 cases a source of the pulmonary emboli was demonstrated—the leg veins in 6, the heart in 2, and anastomatic veins between an obstructed portal vein and the vena cava in 1.

The authors point out that similar cases have been reported in the past as primary pulmonary arteriosclerosis, primary pulmonary hypertension, or Ayerza's syndrome. This study suggests that a large proportion of these cases may result from latent pulmonary embolization occurring over many years, rather than from the very rare "primary" disease of the pulmonary arteries.

PULMONARY ARTERIOSCLEROSIS

Sclerosis of the pulmonary artery and its larger branches is of fairly frequent occurrence, increasing in incidence and degree with the age of the individual. The condition is usually part of a generalized process affecting the entire vascular system. Occasionally arteriosclerotic changes are present to a greater degree in the pulmonary than in the systemic vessels, and in rare instances the sclerosis is most pronounced in the peripheral branches of the pulmonary artery.

Atherosclerosis, as typified in the aorta, finds its analogue in the stem and main branches of the pulmonary artery. The condition is probably related to a disturbance of the cholesterol metabolism. The material is retained in the proliferating subintimal endothelial cells with the formation of atheromas. The location of the lesions is at sites of mechanical strain.

Arteriolar sclerosis without antecedent pulmonary or cardiac disease has attracted particular attention because the condition occasionally manifests itself in a characteristic clinical picture. As mentioned previously, the sclerotic changes are most pronounced in the medium and small branches of the pulmonary artery. The involvement is at first chiefly in the media which shows an increase in elastic tissue, the latter being split and frayed, the muscle fibers showing hypertrophy. Later, there is intimal thickening and fibrous tissue reaction. In the more advanced stages, the lumina of the arteries become obliterated by organized thrombi or intimal proliferation. Recanalization of older thrombi may take place. The appearance of cyanosis and edema with comparatively little dyspnea, "black cardiac," is related to the polycythemia associated with the generalized obliteration of the pulmonary vascular bed. The condition usually terminates in right ventricular failure.

Both pulmonary hypertension and thromboembolism play a role in the production of pulmonary arteriosclerosis. This has been shown experimentally by Harrison,[52] Wartman et al,[53] Muirhead and Montgomery,[54] and more recently O'Neal and Thomas.[55] The latter summarized their studies as follows:

1. Pulmonary arteriosclerotic lesions are very frequent in congenital heart disease in which a left-to-right shunt or pulmonary stenosis is present.

2. Pulmonary arterial thrombi are similarly frequent in cases with left-to-right shunt or with pulmonary stenosis.

3. The high (70 per cent) association of thrombi and arteriosclerosis indicates that organization of thrombi may be the primary factor in these cases.

4. There is evidence for the embolic origin of pulmonary arterial thrombi.

5. A series of lesions may be shown indicating the probable stages in the transformation of a fresh thrombus to an arteriosclerotic lesion.

6. It is unlikely that hypertension and increased rate of pulmonary blood flow are primary factors in the production of pulmonary arteriosclerosis, but when these factors are present the arteriosclerotic lesions are greater.

Friedberg[56] believes that arteriosclerosis of the small pulmonary arteries and arterioles is probably secondary to pulmonary hypertension associated with diffuse pulmonary disease and not the cause of the pulmonary hypertension. In many instances lesions interpreted as arteriosclerosis of the small pulmonary arteries may represent secondary intimal fibrosis due to healing of pulmonary emboli.

Brill[1] states that arteriosclerotic and/or thrombo-embolic narrowing of the pulmonary arteries and their branches (with secondary pulmonary hypertension) may be either primary, as in primary pulmonary vascular sclerosis, or secondary to some other pathologic process.

Barnard[57] states that the course of events culminating in chronic right ventricular failure is as follows: Recurrent embolism by minute blood emboli causes eccentric intimal fibrosis. At the same time recurrent vasospasm due to impaction of emboli in arteries then brings about hypertension and impaired intimal nutrition, so that circumferential and concentric lesions consisting not only of fibrous but of elastic tissue also arise. Lesions arising during recurrent embolic vasospastic hypertension remain once they have formed. Should, however, arteriosclerosis become sufficiently severe or should hypoxemia set in, vasospasm and hypertension, previously recurrent, become continuous. This leads, in turn, to rapid advance of arteriosclerosis and thus a vicious cycle is established with progressive right ventricular hypertrophy and eventual failure.

VASCULAR ANOMALIES

Aberrant pulmonary artery with intralobar sequestration was first reported in 1928 by Muller.[58] The next adequate description was not forthcoming until Pryce's comprehensive study[59] in 1946. Since then the total number of reported cases has increased in a geometric fashion to approximately 100.

Mannix and Haight[60] reported 13 cases but failed to find evidence of right ventricular hypertrophy in any, in direct contrast to the experience of Findlay and Maier.[61] These authors invited the attention of their readers to the importance of the development of pulmonary hypertension and heart failure resulting from the hemodynamic burden of an arterial systemic-pulmonic communication. Mannix and Haight[60] reasoned that they saw no cor pulmonale, because their patients all had a normal pulmonary artery and none had a direct or large scale communication between the systemic and the pulmonic circulation such as prevails with those anomalous pulmonary arteries which simulate patent ductus arteriosus.

SICKLE CELL ANEMIA

In discussions of cor pulmonale most authors include sickle cell anemia on their list of etiologic factors. However, none gives much attention to the pathogenesis involved. This situation was remedied by Moser and Shea,[62] who recently presented a detailed study of pulmonary thrombosis in various sickle states. Their study group was comprised of individuals who possessed quantities of S-hemoglobin, not only the homozygous (S-S) state, but many variants (A-S, S-C, and S-thalassemia). They believed that all their patients had episodes of pulmonary infarction which could not be explained on an embolic basis. They suggested that the pulmonary vascular bed, aside from being the passive receptor of intensely sickled venous blood, may be subject to intrapulmonary influences which tend to the development of thrombosis in situ and infarction. Cor pulmonale may be an ultimate consequence of such multiple recurrent infarctions, and the necessity for increased cardiac output may be a contributory factor.

KYPHOSCOLIOSIS

Samuelsson[63] reported the study of 41 living patients and 62 deceased subjects who had severe spinal deformities causing distortion of the thorax. Of the living patients one-half showed signs of cor pulmonale; the electrocardiograms in 37 per cent showed right cardiac strain, 19 per cent showed signs of left heart strain, and roentgen signs of right heart strain were observed in 27 per cent. Sixty-three per cent of the patients who were deceased had shown signs of cor pulmonale. Fifty-nine per cent of them died of heart failure, and pneumonia was the cause of death in 14 per cent.

According to Hecht[4] this is one cause of cardiorespiratory involvement that represents a clear combination of heart and pulmonary embarrassment. Obviously, the respiratory functions are grossly impaired because of the severe chest deformities, and ventilation is inadequate. As a consequence, arterial desaturation and polycythemia are frequently present. Somewhat surprisingly, extremely high pulmonary artery pressures, in the range of those seen in essential pulmonary hypertension, have been recorded. The combination of these factors leads to early heart failure, even in young subjects with a normally functioning myocardium. The reason for excessive elevation of pulmonary artery pressure remains unexplained. It is quantitatively not reasonable that purely mechanical factors, which have been implicated, account for the elevated pressure.

Brill[1] says that kyphoscoliosis and pectus excavation are important causes of cor pulmonale. He thinks that the exact mechanism by which these lesions cause strain on the right side of the heart is not completely established. Available evidence implicates pulmonary infection and emphysema secondary to compression of portions of the lung.

On the basis of data obtained in pulmonary function studies and by cardiac catheterization in 16 cases with kyphoscoliosis Schaub et al[64] discuss the pathogenesis of the cor kyphoscolioticum. Neither clinical nor anatomic findings in this condition, whether right ventricular hypertrophy and dilatation or right heart failure, can be ascribed solely to the mechanical impedance to circulation caused by the deformity of the thorax and the associated displacement of the heart and of the big vessels. It appears rather that respiratory failure caused by the immobility of the chest and secondary hypoventilation with hypoxia and hypercapnea lead to pressure elevation in the pulmonary circulation and thus eventually to failure of the right heart.

Fishman et al[65] state that patients with kyphoscoliosis have an increased elastic resistance of the lung and chest wall; they adopt a breathing pattern characterized by small tidal volumes and high respiratory rates. Such a pattern is most effective in minimizing the elastic component of the work of breathing. However, though total ventilation is thus maintained, alveolar ventilation is sacrificed for the sake of dead space ventilation. The work of breathing in these subjects is far above normal, as measured for the lungs and for the chest wall. As with obese subjects, at lower levels of ventilation, work done on the lung remains fairly normal; however, at these levels work done in moving the chest bellows is abnormally high. As the tidal volume is increased the total work of breathing increases markedly.

Thoracoplasty has been known to eventuate in cor pulmonale, with right ventricular failure. Reported incidences of this vary, however. Studies were made by Zimmerman[66] on 5 patients who developed cor pulmonale 8 to 15 years after thoracoplasty. These patients were encountered in the course of 650 catheterizations done under the guidance of the author. Measurements were made of the cardiac output, oxygen consumption, blood oxygen levels, femoral artery pressure, and right ventricular pressure. All 5 patients had marked elevation in pulmonary artery pressure, and pulmonary resistance was markedly increased. The pulmonary diastolic pressures ranged from 100 to 500 per cent above normal. These findings are the same as those found in cor pulmonale from other causes.

It is not known why patients with thoracoplasty may develop cor pulmonale. This can occur even though the contralateral lung is free of disease. Possibly this would fit into the group of restricted pulmonary reserve described by Rappaport and Mayer.[9]

(*Continued on page 502*)

(*Part III in October*)

A Symposium-Panel Discussion on

THE USE AND ABUSE OF ADRENAL STEROIDS

Sponsored by the
COUNCIL ON DRUGS OF THE AMERICAN MEDICAL ASSOCIATION
in coöperation with
GEORGE WASHINGTON UNIVERSITY SCHOOL OF MEDICINE
THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

Thursday Afternoon, September 25, 1958
Lisner Auditorium—21st and H Streets, N.W.
Free Registration to All Physicians

12:30 P.M. Registration (optional)

1:15 P.M. Welcome

John Parks, M.D.
Dean, George Washington University School of Medicine

James W. Watts, M.D.
President, The Medical Society of the District of Columbia; Professor of Neurological Surgery, George Washington University School of Medicine

Hugh H. Hussey, Jr., M.D.
Dean, Georgetown University School of Medicine; Member, AMA Board of Trustees

1:30 P.M. Opening Remarks by the Chairman-Moderator

Thomas McP. Brown, M.D.
Executive Officer of the Department and Eugene Meyer Professor of Medicine, George Washington University School of Medicine; Member, AMA Council on Drugs

1:45 P.M. Steroid Therapy in Endocrine Disorders

John E. Howard, M.D.
Associate Professor of Medicine, Johns Hopkins University School of Medicine

2:05 P.M. Steroid Therapy in Rheumatoid Diseases

L. Maxwell Lockie, Sr., M.D.
Professor and Head of the Division of Therapeutics, University of Buffalo School of Medicine

2:25 P.M. Steroid Therapy in Systemic Infections

Monroe J. Romansky, M.D.
Professor of Medicine, George Washington University School of Medicine

2:45 P.M. Steroid Therapy in Skin Disorders

Richard B. Stoughton, M.D.
Director of Dermatology, Western Reserve University School of Medicine

3:05 P.M. Steroid Therapy in Surgical Patients

Warren H. Cole, M.D.
Professor and Head of the Department of Surgery, University of Illinois College of Medicine

3:25 P.M. Steroid Therapy in Ophthalmic Lesions

Irving H. Leopold, M.D.
Professor and Head of the Department of Ophthalmology, University of Pennsylvania Graduate School of Medicine

3:45 P.M. Intermission (15 minutes)

4:00 P.M. Panel Discussion on Adrenal Steroid Therapy

Moderator: **Thomas McP. Brown, M.D.**
Panelists: Speakers for the Symposium

The panel will open the preceding presentations to general discussion and consider questions from the audience.

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Editorials

REVERENCE FOR THE AGING

Today there are some 16,000,000 of our citizens who are 65 or more years of age. Another 36,000,000 are in the middle years of their lives. This is the first time in the history of the Nation that we have had such a large group of senior citizens. It is because of this great number that medicine today is faced with the Herculean task of caring for their mental and physical needs. This is a situation with which we have never been confronted. Dr. David B. Allman, immediate Past President of the American Medical Association, has stated: "The most important single problem facing the medical profession today is the care of the aged."

Our Western culture has unfortunately overstressed youth, to the detriment of our elders. Our consideration for the needs of the aged has not been met and will not be met until our younger generation develops a more tolerant and respectful attitude toward our senior

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

citizens. Unlike Eastern culture, where age is often overvenerated, we in this country should adopt a middle course on which our aged are accorded a little more respect. Our older citizens have in many instances been deprived of basic needs, such as emotional security, affection, recognition and respect. It is the denial of these basic emotions which has placed an increasing load on our mental institutions. Many of these patients are those who cannot withstand the emotional and physical stresses of aging.

In the past a person was considered old by his chronological years. This is no longer a tenable concept, and it is about time that we consider a person in terms of his biological capacities: Is he still able to function, physically and mentally, despite his chronological years? This is certainly far more important than the mere counting of his birthdays.

Respect for the aged and the infirm should be taught in homes, schools and churches. It is only through these means that we can cope with the problems of old age, in an era of increasing life span. Only by altering the attitude of youth toward the aged will youth become more cognizant of their own needs when they reach their maturity.

Geriatrics is a grossly neglected health field. The number of physicians interested in the mental and physical care of the aged is markedly limited. The opposition of our younger physicians to become interested in this field is appalling. The lack of glamour and quick therapeutic results are discouraging to them. Yet, those of us who are now engaged in the care of the elderly sick are more than recompensed by the gratitude and happiness reflected by those who have been so assisted. The youth of today represents the aged of tomorrow. It is high time that more thought and respect be given to the millions of our aged citizens who surround us on all sides and who now represent a large bulk of our practice of medicine.

Let all of us in the profession of medicine be first to display more respect for our aged and infirm citizens. Our schools, churches, homes, health and civic organizations should be ever mindful of the needs of this group and be prepared to assist them for what should be the happiest years of their lives.

THEODORE C. C. FONG, M.D.

ADOLESCENT UNIT—A CONCEPT OF CONTINUITY IN MEDICAL CARE

Throughout the ages, one of the requisites for progress of learning in medicine has been the privilege of following the course of a patient and his disease or symptom over long periods of time. With the modern specialization in medical practice, there have developed certain gaps in our follow-up program. A noteworthy one is the age of adolescence wherein the pediatrician formerly ceased caring for his patients at about 12 years of age. Until this group of patients fully mature at about 18 to 21 years, there is a need, hitherto largely unmet, in which a great service can be performed, much needed data collected, and a continuity of medical care set up which can open up vast areas of new knowledge.

Heretofore, this important period in the lives of all of us has received very little attention in medical school curricula and intern and residency training programs. There have been no special clinics nor hospital facilities set up to provide for the adolescent. This former picture is now rapidly changing. At least one medical school is offering postgraduate courses in Adolescent Medicine. Special clinics and inpatient facilities called "Adolescent Units" have been started, and many more are being planned throughout the United States. These are largely in connection with children's hospitals. Such a unit has recently been inaugurated for outpatients and inpatients at Children's Hospital of D.C. Some of our medical schools are including teaching in adolescent medicine through seminars and conferences on adolescent problems. The American Academy of Pediatrics, for the past several years, has included in its program at the annual meeting a Seminar, conducted by authorities in the field, on Adolescent Problems.

These activities seem to say that a great need has been recognized and attempts are being made to fill the gap and fulfill this need. The need stems from the special characteristics exhibited by adolescents. Some of the characteristics of the adolescent will be cited to point up the fact that we have a need to know more about those who fall into this age group. They lend themselves best to care by those especially interested in them in a special place created for them, because they are neither children nor adults. They present a very intriguing as well as a challenging group. They are a demanding group, and this characteristic alone makes them ideal for the training of physicians. The physician dealing successfully with these patients must put the emphasis on the care of the person, not the disease. This is true because of their extraordinary overconcern with themselves. They do not mix in well with younger children nor with older ones. They do best in a place of their own, where they can tell their own story, where they can begin to take responsibility for their own health, and where they can have an interested doctor of their own. They are unsure of themselves and yet very intent upon developing their own personalities. They are resistant to any efforts to mold them. They have not yet reached the stage of development and security that will permit them to compromise or to accept other people's suggestions. The adolescent is vitally concerned with his own size and state of maturation. He wants to be average, not unlike others. He wants to be popular and he feels the need for success. He looks for independence, yet retreats from too much responsibility because of undeveloped self-reliance. This forces the doctor, if he hopes to succeed, to "listen" to teenagers and have more interest in them than their disease or complaint.

In order to provide adequate continuity of care for the adolescent, several conditions must be met. In the first place, we must cultivate in physicians an interest in this group of patients. We must provide a place where great numbers of patients can be brought together not only to meet their needs, but to train young physicians to meet the challenge of their care. To meet the needs, each patient should have one interested physician who will follow him throughout no matter what the condition (except, of course, specific conditions such as fractures, surgical emergencies, etc.). A team is needed, however, to work up effectively and to provide an overall care. The team must include, among others, a gynecologist, dermatologist, psychiatrist, endocrinologist, and cardiologist. To meet with the greatest success, the teenager's own family doctor should have these consultants meet the patient in the Adolescent Unit or clinic setting.

To help get started in this field locally, the Junior League of Washington has made a very generous grant to the Research Foundation of Children's Hospital of $30,000 ($10,000 per year for the next 3 years) to get an adolescent training program off the ground, so to speak. This will merely scratch the surface, since the training and research which must go into this program will require considerable sums of money. One can visualize in the not too distant future separate buildings for the care of these young people, both for the clinic and the inpatient department. Generous grants will be necessary to train our young interested doctors and to support research into the many poorly understood diseases and problems peculiar to the adolescent.

With each year, more and more valuable data, knowledge, and understanding will emerge from such continuity of medical care provided by the Adolescent Unit and the pursuit of Adolescent Medicine.

William F. Burdick, M.D.
Program Director in Adolescent Medicine, Children's Hospital

THE DOCTORS AND THEIR LEASES

Until the Securities and Exchange Commission was established the sale of bogus and worthless stocks was so prevalent that legislation was necessary to stop this questionable practice. Prior to the legal restraint it was said the most gullible purchasers were doctors and ministers of the gospel. Although professional men have acquired wisdom largely through the publicity devoted to stocks, bonds, health and life insurance, there remains a lack of foresight or information concerning transactions in which doctors are involved. A conspicuous example is the lease of an office, and various forms of insurance fall in the same category. In the majority of these leases or policies there appears a part recorded in fine type which receives scant attention and is dismissed as redundant technical specifications. Many have learned to their dismay that in the fine print is written the heart of agreement. In some states the law prescribes that large type must be used for the essentials of the instrument.

It is usually to the advantage of the lessee (the tenant) to obtain a lease to run for 3 or 5 years, especially if he has spent a sum for remodeling his suite. The long-term lease does not mean that the rental will not be increased during its tenure, because there is usually included an escalator clause which provides for an equitable increase or decrease in the rent under circumstances involving the cost of operating the property. It is possible that the lessor may be confronted with higher taxes, employee demands for a raise in wages and shorter hours, and increase in the cost of fuel, electricity, gas and water. Instances in which the rent has been reduced are rare indeed. It is well to remember that the lease is not renewed unless notice of renewal is requested at least 30 days prior to its expiration. Failure of renewal leaves the tenant on a month-to-month basis and he can be evicted upon a 30-day notice.

Incorporated in most leases are some items, or rules and regulations, which should interest the lessee; for instance, the lessee can be deprived of the premises upon 7 days' notice if he fails to pay the rent when due or does not comply with the rules and regulations as specified in the lease. He waives the 30 days' notice when he signs the lease. This will be found in the fine print.

He, the lessee, shall keep the premises in good order and repair. The lessee will not assign, sublet or otherwise part with possession of said premises without consent of the lessor in writing. The lessee shall not install any air-conditioning equipment without the approval in writing of the lessor. The lessee shall give the lessor prompt written notice of any accident or defect in the water pipes, electric wires, or heating apparatus. The lessor shall have the right to have its officers or agent enter the premises at reasonable hours in the day or night to examine the same, to make repairs, additions, or alterations which may be necessary for the safety or convenience of the occupants. The sidewalks, halls, passages, elevators, and stairways shall not be obstructed by any of the tenants.

The tenants, their clerks or servants shall not make or commit any improper noises or disturbances. No carpet, rug or other articles shall be hung or shaken out of any window or placed in a corridor as a door mat. No linoleum or oilcloth or rubber or other airtight covering shall be laid on the floors, nor shall articles be fastened to or holes drilled or nails or screws be driven into the walls. Nothing shall be placed on the outside of the building or in the window, window sills or projections.

No sign or advertisement or notice shall be inscribed, printed or affixed on any part of the outside or inside of said building unless of such color, size and style in such places upon or in said building as shall be designated by the lessor. After permission to install telephones, call boxes, telegraph or other electric wires has been granted lessor will direct where and how same will be placed. No animals or birds shall be brought into or kept in or upon the premises. No furniture or other material shall be moved into or out of the building without first notifying the superintendent, and the moving shall be under his direction and control. The use of the office suites as sleeping apartments or for any immoral purpose is absolutely prohibited.

The above is an incomplete list of the rules and regulations which are embodied in most leases used in this area.

Since the first type of lease was employed, structural changes in buildings, recent inventions, and health regulations have made old leases obsolete. On the whole, the contents are reasonable and time has proved them operable. In the first reading of a lease it may appear that the lessor is a modern Scrooge, but there are two sides to the story which can be unfolded by a meticulous examination of the lease. It is safe to say that honorable parties to a lease will never have a quarrel over its contents.

C. S. W.

In and Out of Focus

BY THE OBSERVER

Economic Problems Multiply

It has become increasingly apparent that the growing number of economic problems which confront the Society's Executive Board will not be readily solved. In fact, it is a serious question whether solutions acceptable to the medical profession here, in its present frame of mind, will be found in the very near future. However, there is nothing to be gained and much to be lost by procrastination. The Board has, therefore, scheduled a meeting in mid-August to deal with the most urgent of these problems. At the time these lines were written the meeting had not been held, and what, if any, action is taken will be reported later.

The problems to be dealt with by the Board at the above meeting include the following:

Special Contract for Low-Income Subscribers to Medical Service. In a communication addressed to Dr. James W. Watts, President of the Medical Society, on July 21, 1958, Dr. Donald Stubbs, President of Medical Service, pointed out that the Service's present program is being priced out of the reach of persons of low and moderate income and that the medical profession shares with the Service and the public "the responsibility for making a low-cost prepaid medical care contract available to the low-income person."

In a summary prepared for the Society's Executive Board it was stated that "Medical Service was conceived as a plan to help persons of low and moderate income to obtain medical care. Thus a limited program of surgical, obstetrical and related services was offered to the public at a cost of $2.00 a month for a family contract.

"Subsequently, the Surgical Contract was expanded to provide coverage for some procedures performed in the office, fees to physicians were increased 20 per cent, and claims expense increased as the result of a more liberal claims payment attitude by the Physicians' Services Committee. While enrollment continued at a substantial rate, it is believed that some of the lower income subscribers relinquished their coverage in the face of increased subscription charges. The rate for a family under the revised Surgical Contract which went into effect March 1, 1952, was $3.20 a month.

"In November 1956, a Surgical-Medical Certificate was offered to the public. Under this contract, the Surgical fee schedule, which had been increased 20 per cent in 1952, was increased an additional 11 per cent, and a number of new benefits were incorporated in the contract. Among these new benefits were such things as medical care to a hospitalized patient after the third day of hospitalization; diagnostic X-ray and laboratory services out of the hospital; radiologic services for the treatment of malignant diseases, isotopes, electrocardiograms, basal metabolism examinations, electroencephalograms and electroshock therapy. The family rate for this contract is $4.94."

It was at this point that Service officials became concerned because "the increased cost of the Surgical-Medical Contract might price this coverage out of the reach of many low-income subscribers."

The low-priced Surgical Contract, it was stated, had been continued at a financial loss in an effort to protect low-income subscribers, but this could not continue indefinitely. The Service's Board of Trustees decided that it would eliminate this Contract if "some other low-cost protection should be provided in its place . . . ." Visualized by the Board was a new type of Surgical-Medical Contract with lower subscriber rates and fee schedule. Whether such a program is possible depends to a large extent on the medical profession. The Society was asked for its suggestions as to the type of program which might be devised to meet this situation.

Comprehensive Coverage for Members of the Transit Union. As reported in the communication sent to the Society's membership by the Committee on Medical Care several weeks ago, conferences have been in progress in which participants have been officers of Medical Service, members of the Committee on Medical Care, Transit Union officials, and AFL-CIO representatives. At the conclusion of the last conference no agreement had been reached as to the extent of the benefits to be provided and the costs to the subscribers.

Subsequently, however, the Committee on Medical Care voted to recommend a plan embodying the following features to supplement the provisions of the Service's present Surgical-Medical Contract:

Full coverage with respect to ancillary services
Inclusion of home and office surgery
Inclusion of medical care—first three days in the hospital
Inclusion of care of infants from day of birth
Inclusion of home or office visits, to be limited to one visit per day
Inclusion of examinations incidental to illness or accidents and periodic physical examinations
Medical care in short-term acute mental illness
Treatment for allergy and tuberculosis
Pre- and postnatal care in obstetrical cases
Unlimited consultations
Office administration of drugs by injection

In addition to the above, the Committee agreed that there should be no income limit for Transit Union members for whom the pilot program was designed. Further, there should be developed a relative fee schedule such as now exists in California and Kansas.

The Committee voted to recommend to the Executive Board that they approve incorporation of the above features in the Surgical-Medical Contract and when details had been developed by Medical Service, submit the plan to the Society for approval.

Medical Fees under Medical Service's Major Medical Program. Several communications have been received by the Society from Medical Service about physician's charges to subscribers under the Major Medical Program. Enclosed with these letters were memoranda providing details in several specific instances where fees were questioned because of their size.

"Under its Major Medical Program," the Society was informed, "Medical Service is obligated to pay on the basis of 'reasonable and customary charges' in the community. We would like to have the Medical Society assist us in making this determination whenever it is needed."

The Executive Board referred this matter to the Committee on Medical Care for its recommendations. The Committee promptly inquired of the Society's specialty groups, of which the physicians whose fees were questioned were members, if they thought the charges made in the instances cited were reasonable and customary in the community when the income levels of the individuals were taken into account. The replies to these queries were all in the affirmative. However, the Committee disagreed and voted "that Medical Service, being a community plan for which the medical profession is responsible and has agreed to support, should be conducted with proper regard for its financial soundness. Charges made by physicians participating in the Service should therefore be reasonable and customary in the community. The Committee recommends that the fees agreed upon under the Medicare contract be used by Medical Service in determining the reasonableness of the charges under its Major Medical Coverage program."

The Board at its regular meeting in June had this recommendation before it but took no action. This matter, too, is up for consideration at the Board's special meeting.

Whatever action the Board takes on the above matters must, of course, be ratified by the Society. Considering the nature of the issues involved, one can be certain that the membership will not take them lightly, for the problems to be solved are fundamental and indicative of the changes which are apparently in store for physicians.

★

Free Choice Issue

One of the most explosive issues before the House of Delegates in San Francisco involved the United Mine Workers' Welfare and Retirement Fund. Charges and countercharges filled the air, a number of delegates vigorously demanding that features of the Fund's Medical Care program to which they objected be brought to public attention and that the AMA headquarters be directed to implement two resolutions adopted by the House in December, 1957, forthwith.

The Reference Committee to which this matter was referred bore the brunt of a heated discussion in which delegates from states in which the Fund is most active took part. Speaking strongly in condemnation were delegates from Colorado and Kentucky. More conciliatory were those from Tennessee and Virginia, where the situation had been more satisfactory.

After reviewing the testimony, the Committee came to the conclusion that it would be desirable to postpone final action in the matter until the AMA's Commission on Medical Care Plans had completed its investigation and submitted its findings and recommendations. The Commission's report, it was stated, would be presented to the House at the Minneapolis meeting in December, 1958.

The two resolutions which had been adopted in 1957 specified that "a broad educational program be instituted at once by the American Medical Association to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the 'Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund' adopted by this House last June [1957]."

The other resolution directed that the appropriate committee or council of the AMA engage in conferences with third parties to "develop general principles and policies which may be applied to their relationships with members of the medical profession."

It was the first of these resolutions which stirred the delegates' emotions to a high pitch. When the Reference Committee's report, containing the recommendation that action be delayed, was placed before the House, there was loud protest led by the Colorado delegation.

By a vote of 110 to 72, the Committee's recommendation was rejected and an amendment providing "that this section of the Reference Committee report be amended to show that our AMA Headquarters Staff is directed, under supervision of the Board of Trustees, to proceed immediately with the campaign which was originally ordered at Philadelphia last December, that no further delays will be tolerated, and that the Council on Medical Service be relieved of any further responsibility in this matter."

Many delegates, particularly those who stood by the Reference Committee, were deeply disturbed at this turn of events because they were of the opinion that nothing would be gained by a public airing of differences between the Fund and the AMA. On the contrary, they believed both groups stood to lose much in public esteem. At the time this was written it was still hoped that calmer judgment will prevail and that some agreement will be reached between the Fund and the Association.

At the heart of this controversy is the free choice principle. The charge was made by several delegates that the Fund had discriminated against competent physicians by usurping the beneficiary's right to select a doctor of his own choice. This refusal to recognize what should be the patient's prerogative, many delegates insisted, should be combated with all resources at the AMA's command.

Those who have given this matter thought are well aware that there is not now or has there been completely free choice of physician. There are a number of instances where selection is restricted by law, by conditions under which an individual is employed, or by the medical program to which he subscribes. For example, in the District of Columbia an individual eligible for Workmen's Compensation benefits is not legally entitled to a physician of his own choice. The law provides that the choice shall be made by the employer, who usually delegates this prerogative to the insurance carrier. In practice, however, a number of insurance companies do not object to the beneficiary going to his own physician except where the condition is serious and services of a specialist known to the company are desired.

There are also industrial plants, some of them in Washington, where the employee, if he has need of medical attention, must use the services of a physician employed by the firm unless he wishes to pay for his own medical care. In many hospitals, where physicians are employed by the institution, free choice is nonexistent. There is also the restriction which is imposed by hospitals who have closed staffs.

In a broader sense, of course, most patients enjoy free choice. The vast majority of physicians in this country are still in solo practice, those who find group practice or salaried employment in various organizations and institutions being in the minority. Whether the patient seeks the services of a solo practitioner, a group, an institution, or an organization, he still enjoys the privilege of exercising choice. Interestingly, many show preference for the solo practitioner even though they are entitled to benefits of some organized medical service.

A number of instances have been brought to your Observer's attention where individuals participating in a closed panel medical plan have, when serious illness threatened, sought the services of a private physician. It would seem unlikely, therefore, that people of this country would accept any system of medical care which would deny them the right of choice, although economic conditions might conceivably force a number to forego the privilege.

One of the most challenging issues facing the medical profession in connection with free choice is how to protect the public from the 3 per cent in the profession who, discussants at San Francisco agreed, are incompetent or dishonest either in professional or financial matters. Their destructive influence, it was repeatedly stated, far exceeded the importance of their number. Their conduct, it was said, is of such nature that grievance committees have little opportunity to deal with them. In many instances no formal complaints are lodged and as a result medical societies are not informed of specific instances of wrong-doing although they are aware they exist.

Obviously, it is too much to expect that the unscrupulous and incompetent physician can be completely eliminated, human nature being what it is. But the situation does call for effective and early action if free choice, even in its present stage, is to be preserved.

★

Social Security and Physicians

For a year or more there have been reports of a strong undercurrent of feeling among many physicians that they should be included in the Social Security program. Emphasis was given this impression at the last meeting of the AMA's House of Delegates in San Francisco when 7 resolutions were introduced, 3 of which called for polls or a referendum of the AMA membership, 1 which favored state-by-state participation, and 2 which advocated compulsory inclusion on a national basis.

The House was not sympathetic to any of these resolutions, emphasizing again that "American physicians always have stood on the principle of security through personal initiative" and that it still was unequivocally opposed to compulsory inclusion of self-employed physicians in the Social Security system.

The House took the position that polls, if any, should be taken by states and the results, if desired, transmitted to it by their delegates. There is no provision in the AMA's Constitution and By-laws, it was explained, for a referendum of members, and if it were done it would "usurp the duties and prerogatives of the House."

When Dr. Raymond T. Holden, the Society's senior delegate, submitted a report on the proceedings of the House at a meeting of the Executive Board on July 28, 1958, (see Report of Delegates, page 485) he strongly favored a referendum in which members of the Society would be given the opportunity to express their views on physician participation in Social Security. Then, he said, the delegates would be in a position to act with full knowledge of the Society's wishes when the matter is again before the House. He emphasized the importance of phrasing the question posed to members in simple and explicit language, leaving no doubt as to its meaning. He suggested the following: "Do you favor physicians being included under the Social Security program?"

The last poll taken of the Society's membership on this subject was early in 1956 following the action of the House of Delegates in Boston when it recommended a canvass by states. On this occasion 2 questions were asked physicians to whom "ballots" were directed:

Do you favor compulsory Social Security coverage for physicians?

If not, do you favor voluntary coverage for physicians?

The question as to voluntary participation was unfortunate because under the Social Security Act this would not be possible since all citizens must be treated alike.

A final count of the returns from the Society's membership disclosed that 572 favored voluntary participation, a surprising 123 favored compulsory participation, and 37 disapproved of both.

As has been suggested, this survey really meant very little because the word "voluntary" had been included. It is now proposed that both words, "voluntary" and "compulsory," be dropped and a member simply asked whether he favors participation.

Calls received at the Society's Executive Offices would indicate that an increasing number of members are in favor of coming under the Social Security Act. Several have expressed themselves as being impatient with a situation where the medical profession is the only non-participating self-employed group. The Social Security Act, they point out, is here to stay, and physicians should assume their share of the burden of sustaining the system regardless of their views as to its merit. There is also a segment of the profession who feel that they are entitled, in case of dire necessity, to the benefits that accrue to participants.

★

An Onerous Task

There are a number of assignments in medical organizations which attract willing workers. However, the preparation of a constitution and by-laws or amendments thereto is certainly not one of them. For as those who have had some experience with them know, it requires much patience and a thorough knowledge of words and their meaning if the document's various provisions are to be accurately stated in clear and explicit language.

If the writing of a constitution and by-laws and its modifications is, in the opinion of many physicians, an onerous task, listening to the reading of them is utterly boring. Your Observer can recall many sessions of the AMA's House of Delegates when members listened in stupefied silence to the reading of amendments and endless discussions over the various shades of meaning of words. These had a soporific effect which no other business before the House had. One may regret such indifference to an important subject, but that is the way it is.

Our Medical Society is unusually fortunate in having as one of its members a physician who possesses the necessary qualifications for the "onerous task." Dr. W. LeRoy Dunn, President-elect of the Society, is also Chairman of its Committee on Constitution and By-laws. Although one could hardly call him an enthusiast for the assignment, he uncomplainingly undertook recodification of the Constitution and By-laws, approved by the Society on January 29, 1958, at the Executive Board's urgent request. There were two members on the Committee, excluding himself, who were willing to be of help if and when needed, but, as usually is the case, the actual work devolved largely on one man. The Committee's responsibility was largely to review the work done and suggest changes.

Dr. Dunn discovered, shortly after he began recodifying, that not all the pieces fitted. There were 46 amendments to the present Constitution and By-laws which had to be integrated. Of necessity, some of the language had to be modified without, of course, changing the sense of the original text. This took a lot of doing, as can be well imagined. Various sections were phrased and rephrased endlessly until they were acceptable.

As others have discovered before him, Dr. Dunn learned that thorough though he might be, the finished product would not be perfect. Defects would soon become apparent, requiring amendments and then more amendments. In fact, the recodification has disclosed that there will have to be amendments to round out the document. One can forecast with certainty that within another dozen years the Constitution and By-laws will again need a complete overhauling.

Naturally, Dr. Dunn is happy that his long and arduous task is about finished. He hopes his Committee and the Executive Board will approve the final result. He earnestly hopes no similar assignment will come his way. One thing is certain: He does not want to hear the recodified Constitution and By-laws read.

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The Patient's Right to Die

Dr. John J. Farrell, Professor of Surgery at the University of Miami School of Medicine, chose an unusual topic, "The Right of a Patient to Die,"[1] for his address at the Annual Banquet of the South Carolina Chapter of the American College of Surgeons. He somewhat apologetically admitted that the occasion called for a theme of a lighter nature. However, he said, "We cannot be surgeons 8 hours a day and something else the remainder of the time. We must eat, live and sleep surgical philosophy." One can readily imagine then that if a cocktail hour preceded the dinner, Dr. Farrell's remarks had a decidedly sobering effect.

Dr. Farrell made it clear that he was no advocate of euthanasia. On the other hand, he observed, "We have, on occasion, been so concerned with the 'right of all men to live' that we are in danger of forgetting that it is appointed for all men, once to die." Surgeons, he continued, are too prone to consider death "a personal defeat" when, as a matter of fact, they know full well that death is inevitable.

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[1] J. South Carolina M.A., 1958, **54**, 231.

> "As a child reading Biblical stories, I was much impressed with the dignity of death: a patriarch surrounded by his children and his children's children sorrowing but eager to hear the last wise words of counsel dropping from the dying lips. What troubles me [now] is that as a surgeon I have rarely witnessed such a scene. If a patient has a right to die as well as a right to live, he has a right to dignity in either instance. I submit that the death bed scenes I witness are not particularly dignified. The family is shoved out into the corridor by the physical presence of intravenous stands, suction machines, oxygen tanks and tubes emanating from every natural and several surgically-induced orifices. The last words, if the patient has not been comatose for the past 48 hours, are lost behind an oxygen mask."

Admitting that he does not have the answer Dr. Farrell nevertheless gives some clue to his feelings in his comments when he repeats questions which he states are frequently put to him by troubled surgical residents. "Mr. So-and-So has widespread metastases and is bleeding; how vigorously should he be treated? What is our proper role as physicians in sustaining life in cases like this? How much or how little therapy is ethically or morally proper? What about his hospital bills?" Dr. Farrell is proud of young physicians who raise such questions because it shows an awareness of their role as doctors and humanitarians.

He quotes the editorial comment of the *New England Journal of Medicine* that "Today's graduate falls heir—and with no extra effort—to the immaculate, modern aseptic skills that can keep a diseased, half-dead, cancerous body alive, by intravenous nourishment and with the magic of penicillin and round-the-clock special nursing, so long that the doctor may emerge in the eyes of the kin with little resemblance to the wise and understanding physician of yesteryear."

The picture of the physician of that period is "the kindly, bearded humanitarian [who] sits quietly by the bedside waiting for his little patient to die or to recover; the decision is not his. There is hidden ignorance and sentimentality in the picture, but there is, paradoxically, great strength, beauty and spiritual dignity implicit in the situation portrayed."

"The pendulum," Dr. Farrell says, "tends to swing away from the proper balance of the science and art of medicine to a point where all out, heroic measures embodying all the most recent advances and all the ancillary services must be employed in every instance."

One can only conclude from Dr. Farrell's observations that too many of his colleagues go to too great lengths to prolong life and so rob death of its dignity. There are those who will challenge this view. Your Observer recalls that a physician who was in his office not long ago said that no matter how dire a patient's situation, the battle is never lost. Generally speaking, however, one may safely assume that the majority of his colleagues do not share this view.

T. W.

REPORT OF DELEGATES TO AMA HOUSE OF DELEGATES*

Meeting in the Rose Room of the Sheraton-Palace Hotel, the House of Delegates considered a variety of subjects as well as electing officers of the Association for the ensuing year. Due to the able administration of the Speaker of the House, Dr. Vincent Askey of California, and the capable organization of the Headquarters Staff, the proceedings went smoothly and with the utmost dispatch.

At the opening session on Monday, Dr. David Allman, retiring President, urged every physician to rededicate himself to the services of mankind and every medical society to strengthen its disciplinary system "to prevent the few from besmirching the majority." In the report of his "stewardship," Dr. Allman told of the renovation and modernization of the AMA headquarters which is now under way and stressed the increase in services to the public and the profession by the Association. A new and interesting service to the profession is a biweekly AMA newspaper which will be distributed to all members. It is anticipated that this paper will bring to the membership up-to-date reports on the social and economic aspects of medicine. It is expected that the first issue of this sheet will go out about September 1, 1958. Dr. Gunnar Gundersen, then President-elect, said that the Association is constantly seeking the best ways to serve the public and the profession and that its influence and impact will continue to grow.

The Goldberger Award in clinical nutrition was presented to Dr. Virgil P. Sydenstricker, Professor Emeritus of Medicine at the Medical College of Georgia.

The 1958 Distinguished Service Award of the AMA was voted to Dr. Frank Krusen, Professor of Physical Medicine and Rehabilitation at the Mayo Foundation, for his outstanding achievements and contributions in the field of physical medicine and rehabilitation. For only the fourth and fifth times in AMA history, the House also approved special citations to laymen for outstanding service in advancing the ideals of medicine and contributing to public welfare. Recipients of these awards were Mrs. Charles W. Sewell, of Otterbein, Indiana, who has spent 45 years in rural health work, and Gabind Behari Lal, Ph.D., distinguished science writer and Pulitzer prize winner.

Though not taking place until Thursday, the final day of the House meeting, the election of officers warrants early mention.

Dr. Louis M. Orr, urologist of Orlando, Fla., was chosen unanimously as President-elect for the coming year. Dr. Orr, who in recent years has been Vice Speaker of the House of Delegates and Chairman of the AMA Committee on Federal Medical Services, will become President of the American Medical Association at the June, 1959 meeting in Atlantic City. He then will succeed Dr. Gunnar Gundersen, of La Crosse, Wis., who became the 112th President at the Tuesday night inaugural ceremony.

In addition to Dr. Orr, the new President-elect, the following officers were selected by the House:

Dr. W. Linwood Ball, of Richmond, Va., Vice President; Dr. E. Vincent Askey, of Los Angeles, reëlected Speaker of the House, and Dr. Norman A. Welch, of Boston, Vice Speaker.

Dr. Warren W. Furey, of Chicago, was elected for a 5-year term on the Board of Trustees, succeeding Dr. E. S. Hamilton, of Kankakee, Ill. Dr. Raymond M. McKeown, of Coos Bay, Ore., was reëlected for a 5-year term, and Dr. R. B. Robins, of Camden, Ark., was named to fill the unexpired term of Dr. F. J. L. Blasingame. Dr. Leonard W. Larson, of Bismarck, N. D., was elected Chairman of the Board at its organizational meeting after the Thursday elections.

Dr. George A. Woodhouse, of Pleasant Hill, Ohio, was renamed to the Judicial Council. Elected to the Council on Medical Education and Hospitals were Dr. Leland S. McKittrick, of Brookline, Mass., to succeed himself, and Dr. John V. Bowers, of Madison, Wis., to succeed Dr. Victor Johnson, of Rochester, Minn.

Dr. R. B. Chrisman, Jr., of Coral Gables, Fla., and Dr. J. F. Burton, of Oklahoma City, Okla., were reëlected to the Council on Medical Service. For the same Council, Dr. Russell B. Roth, of Erie, Pa., was named to fill the unexpired term of Dr. H. B. Mulholland, of Charlottesville, Virginia, resigned.

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* This report is a summary of actions of the House of Delegates which was in session during the 107th Annual Meeting of the American Medical Association in San Francisco, June 23–27, 1958.

Three members were elected to the Council on Constitution and By-laws: Dr. William Stovall, of Madison, Wis., to succeed Dr. Stanley H. Osborn, of Hartford, Conn.; Dr. William Hyland, of Grand Rapids, Mich., to fill the unexpired term of Dr. Floyd S. Winslow, deceased, of Rochester, N. Y., and Dr. Walter Bornemeier, of Chicago, to replace Dr. Furey.

A full report of the actions of the House of Delegates will be published in the *Journal of the AMA* at a later date. However, a summary for present information follows:

United Mine Workers

Major discussion of relations between medicine and the UMWA Welfare and Retirement Fund centered on a reference committee report which concurred in a Board of Trustees opinion that final action on 2 resolutions adopted in December, 1957 should be postponed until the final report of the Commission on Medical Care Plans is received.

One of those resolutions, Number 20, declared that "a broad educational program be instituted at once by the American Medical Association to inform the general public, including the beneficiaries of the Fund, concerning the benefits to be derived from preservation of the American right to freedom of choice of physicians and hospitals as well as observance of the 'Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund' adopted by this House last June." The other resolution, Number 24, called for the appropriate AMA committee or council to engage in conferences with third parties to develop general principles and policies which may be applied to their relationships with members of the medical profession.

In explaining its position that final action on the 2 resolutions should be taken only after proper study, the reference committee said it "anticipates that the final report of the Commission on Medical Care Plans will contain recommendations serving to clarify the relationships between the medical profession, the patient, and third parties, and the committee has been assured that this can be expected." The committee also urged the Commission to present its recommendations no later than December, 1958.

The House of Delegates, however, by a vote of 110 to 72, adopted a floor amendment "that this section of the Reference Committee report be amended to show that our AMA Headquarters Staff is directed, under supervision of the Board of Trustees, to proceed immediately with the campaign which was originally ordered at Philadelphia last December, that no further delays will be tolerated, and that the Council on Medical Service be relieved of any further responsibility in this matter."

Social Security Coverage

Seven resolutions dealing with the inclusion of self-employed physicians under the Social Security Act were introduced. The House disapproved of 3 which called for polls or a referendum of the AMA membership—1 which favored state-by-state participation in Social Security and 2 which called for compulsory inclusion on a national basis. Instead, the House adopted a resolution pointing out that "American physicians always have stood on the principle of security through personal initiative" and reaffirming unequivocal opposition to the compulsory inclusion of self-employed physicians in the Social Security system.

On the question of polls, the House expressed the opinion that any poll should be taken on a state-by-state basis and the results transmitted to the AMA delegates from that state. It also pointed out that since there is no provision in the Constitution and By-laws for a referendum of members, such a referendum would usurp the duties and prerogatives of the House of Delegates, which is the Association's policy-making body.

Voluntary Health Organizations

The reference committee dealing with the resolutions pertaining to the problems in the raising and distribution of funds for the national voluntary health organizations since development of the concept of united community effort recommended that the AMA seek a "high level" conference between representatives of itself, the voluntary health organizations, the United Givers Funds, and the American Medical Research Foundation. However, the resolution was amended from the floor and the following statement was adopted:

"1. That the House of Delegates reiterate its commendation and approval of the principal voluntary health agencies.

"2. That it is the firm belief of the American Medical Association that these agencies should be free to conduct their own programs of research, public and professional education and fund-raising in their particular spheres of interest.

"3. That the House of Delegates respectfully requests that the American Medical Research Foundation take no action which would endanger the constructive activities of the national voluntary health agencies.

"4. That the Board of Trustees continue actively its studies of these perplexing problems looking forward to their ultimate solution."

VETERANS' MEDICAL CARE

Pointing out that the Federal Government spent $619,614,000 on hospitalized medical care of veterans in VA hospitals in 1957, of which about 75 per cent had nonservice-connected disabilities, and that ways and means of obtaining economy in Federal Government are allegedly being sought by Congress at this time, the House urged Congressional action to restrict hospitalization of veterans at VA hospitals to those with service-connected disabilities. It also recommended that the American Medical Association suggest to the Dean's Committees that they restrict their activities to Veterans Administration hospitals, admitting only patients with service-connected disabilities.

THE MEDICARE PROGRAM

The House disapproved a resolution calling for repeal, modification or amendment of Public Law #569 (Medicare) and in doing so took the position that desired changes in the Medicare program could be accomplished through modification of the present implementing directives without the necessity for new legislation. The House reaffirmed the action taken in 1957 in New York, recommending that the decision on type of contract and whether or not a fee schedule is included in future contract negotiations should be left to individual state determination. Also reaffirmed was the Association's basic contention that the Dependents' Medical Care Act as enacted by Congress does not require fixed fee schedules; the establishment of such schedules would be more expensive than permitting physicians to charge their normal fees, and fixed fee schedules would ultimately disrupt the economics of medical practice.

WASHINGTON OFFICE

The House adopted a resolution requesting the Board of Trustees to make an immediate survey and reëvaluation of "the functions and effectiveness of the overall AMA legislative system, including the Washington Office, in the light of present-day needs of the Government, public and medical profession alike for effective liaison between Government and medicine on all matters affecting the public's health and adequate, prompt and accurate transmittal to the full membership of the AMA of information on all current public issues in which the physician has a direct interest." The House asked that the Board of Trustees implement, as rapidly as possible, all changes and additions that its survey discloses are desirable to achieve the basic purpose of the resolution, "effective public and government relations."

MEDICAL ASPECTS OF HYPNOSIS

A Council on Mental Health report on "Medical Use of Hypnosis" was approved by the House, which recommended that it be published in the *Journal of the AMA* with bibliography attached for the study and use by the profession. In brief, the report stated that physicians and dentists might find hypnosis valuable as a therapeutic adjunct within the specific field of their professional competence. It stressed, however, that all of those who use hypnosis need to be aware of the complex nature of the phenomena involved and that teaching related to hypnosis should be under responsible medical or dental direction and should include the indications and limitations for its use. The report urged that physicians and dentists participate in high level research on hypnosis and vigorously condemned the use of hypnosis for entertainment purposes.

OVER-THE-COUNTER MEDICATIONS

The House endorsed recommendations by the Public Relations Department that:

The AMA join with other interested groups in setting up an expanded voluntary program, coördinated by the National Better Business Bureau, which will seek to eliminate objectionable advertising of over-the-counter medicines.

The AMA counsel with the National Better Business Bureau in the selection of a physicians' advisory committee.

The established facilities of the AMA, such as the Chemical Laboratory, the offices of the various scientific councils, and the Bureau of Investigation, be made available, so far as is feasible, to aid in the carrying out of this program.

The Public Relations Department continue its liaison work with the various groups involved and assist in the development and operation of this program in any way possible.

The AMA become a sustaining member of the National Better Business Bureau, giving evidence of its willingness and desire to support this organization in its worthwhile activities.

Miscellaneous Actions

Among a variety of miscellaneous actions, the House also:

Adopted amendments to the Constitution and By-laws which eliminate the separate offices of Secretary and Treasurer, combining them into one, and which change the titles of the General Manager and Assistant General Manager to Executive Vice President and Assistant Executive Vice President;

Recommended the appointment of a Committee on Atomic Medicine and Ionizing Radiation and suggested that it concern itself with informing the American public on all phases of radiation hazards related to the national health;

Approved in principle the admission of the Virgin Islands Medical Society as a constituent society of the American Medical Association;

Commended the Federal Food and Drug Administration for its untiring efforts in behalf of the public and the profession, and urged all states to review and strengthen their food and drug laws;

Approved the "Suggested Guides for the Organization and Operation of Medical Society Committees on Aging," submitted by the Council on Medical Service;

Commended the Committee on Medical and Related Facilities of the Council on Medical Service for its report on the Hill-Burton Study and approved its recommendations;

Requested that any funds provided under the Public Assistance provisions of the Social Security Act for medical care of the indigent be administered by a voluntary agency such as Blue Shield on a cost plus basis or by a specific agency established by the medical society of the state in which indigent care is rendered;

Directed the Board of Trustees to study problems pertaining to licensure by reciprocity and to consult with the Federation of State Medical Boards in an attempt to find a satisfactory solution;

Urged all members of the House of Delegates to give full consideration to the preliminary report of the Committee on Preparation for General Practice and to submit comments and suggestions to that committee;

Expressed the opinion that some operating-room experience is valuable and necessary training for all nurses;

Recommended that general hospitals, wherever feasible, be encouraged to permit the hospitalization of suitable psychiatric patients, and

Approved a National Interprofessional Code for physicians and attorneys prepared by the joint liaison committee of the American Medical Association and the American Bar Association.

Of interest to the local membership should be the action of the House in approving the selection by the Board of Trustees of Miami Beach as the site of the 1960 Annual Meeting in place of Chicago. The 1959 Annual Meeting will be held in Atlantic City and the 1961 Annual Meeting in New York. This brings three annual meetings in succession to the East Coast and within easier travel distance. Incidentally, the 1960 Interim Session is scheduled for Washington, D. C.

Respectfully submitted,
RAYMOND T. HOLDEN, *Delegate*
VICTOR R. ALFARO, *Delegate*
THEODORE WIPRUD, *Secretary*

SUMMARY OF FINDINGS FROM PHYSICIAN SURVEY ON NURSING HOMES*

In April, 1958 a questionnaire on nursing homes was mailed to all members of the Medical Society of the District of Columbia. The survey was initiated by the Committee on Public Health, which for the past 2 years has been studying the problem of the adequacy and caliber of nursing and convalescent home care available in the Washington area.

Physicians were asked as to their use of nursing or convalescent homes within the past 2 years, the type and number of patients referred to such facilities during this period, and how many patients needed such care but for whom it could not be obtained. Physicians were also asked to identify the particular nursing or convalescent homes used by their patients and to describe those homes in terms of medical supervision, availability of a registered nurse, and adequacy of other personnel and equipment. The approximate monthly cost to the patient was also requested, as well as a rating of each home as to sanitation, pleasantness of surroundings, safety, diet and recreational facilities.

Information was sought on whether or not the physician was associated with any of these nursing homes in either a consultant or a medical advisory capacity. Finally, if the homes were considered unsatisfactory the doctor was asked to specify the reason and to make such comments or observations as he might wish.

A total of 241 physicians responded, reflecting approximately 12 per cent of the total membership. Of this number, 129 stated they had used nursing or convalescent homes within the past 2 years, and 102 had not used homes within this period. Ten responses were excluded because they were either received after the tabulations were completed or because, in the discretion of the Chairman, it seemed appropriate to do so.

Table 1 shows the type of patients referred to nursing homes by the 129 physicians who had used such facilities within the past 2 years.

While the number of homes used by individual physicians for their patients ranged from 1 to 7, most of the doctors tended to limit referrals to 1, 2 or 3 homes. Only 16 indicated the use of more than 3 homes.

An exact count of patients placed in these nursing homes was not reported. Sixty-nine physicians indicated that the number placed in homes during the past 2 years was less than 5, with 33 indicating a placement of from 5 to 9. Three physicians referred 25 or more. It was not possible to ascertain the number of individuals needing nursing home care but for whom it could not be obtained.

TABLE 1

Category of Patients Referred

(not mutually exclusive)

Aged	95
Chronically ill (including cancer)	88
Home care unfeasible	30
Convalescent patients	25
"Stroke" patients	17
Children (including disabled and mentally defective)	7
Psychiatric (including alcoholic)	5
Not stated	1

Many physicians have no occasion to make use of nursing or convalescent homes because of the nature of their practice. Others noted nonuse of homes because they found them unsatisfactory; the reasons most frequently mentioned were inadequate staff, high cost to patient, inadequate patient care, and unsanitary conditions.

From the responses it would appear that very few of the physicians had any direct association with any of the nursing homes in either a consultant or a medical advisory capacity. Of the 129 physicians mentioned above, 7 served in a consultant capacity and 6 as staff member or medical advisor.

In addition to answering the specific questions, 69 physicians made special comment or recommendation. These are of interest and some significance to the Committee on Public Health as they reflect the general experience, attitude and opinion of the practicing physician with reference to the nursing home situation.

These comments included expressions of dissatisfaction with existing nursing homes in general, rather specific and sharp criticism of management, attitude and adequacy of qualified personnel, gloomy and unattractive surroundings, poor sanitation, and economic factors which make good nursing home care beyond the reach of most middle income families, let alone the lower income group. Commendation was also given by a few physicians who felt that certain nursing home operators were doing a good job. The need for a hospital for chronic diseases in Washington was mentioned several times. Also suggested was the need for a "real convalescent hospital."

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* This summary highlights some of the findings from the Physician Survey on Nursing Homes, conducted by the Committee on Public Health: Dr. Clifton R. Gruver, *Chairman*; Dr. Jack Kleh, *Vice Chairman*; Drs. Charles G. Aronstein, Ernest H. Aschenbach, Frank Bacon, Josephine J. Buchanan, W. Montague Cobb, Milton M. Greenberg, Robert B. Havell, Merwin L. Hummel, Howard S. Madigan, G. Foard McGinnes, Beveridge Miller, Monroe J. Romansky, and Saul Zukerman.

Responses indicating needs in special fields of medicine are quoted below:

"Most of my problems concern care for the Mongolian idiot. The problem here is acute, because there are limited facilities. Private nursing home care is either unavailable or prohibitive in cost to the patient's family. Governmental institutions almost always are full or will not accept a Mongol until 5 or 6 years of age is attained."

"We have not used a convalescent home during the past 2 years in the Washington area. Since we confine our practice to neurosurgery we have usually found the convalescent homes inadequate to care for these patients. We have sent patients to the Home for Incurables, to the Children's Convalescent Hospital, and of course we have many patients in the D. C. General Hospital. Furthermore, I know of few convalescent homes that will accept the type of neurosurgical patient that cannot be taken care of at home."

Suggestions were made to the Committee, and the hope expressed, that ways and means could be found to improve the situation. It was further noted that many nursing home operators appreciate constructive criticism and that physicians could be helpful in making suggestions for improvements to the operators which would result in better overall patient care.

Of the 102 responding physicians who had not used nursing homes within the past 2 years, 82 indicated it was because of their type of practice. Several cited previous experiences and commented on the dearth of adequate nursing homes. It was further suggested that "there should be a list of nursing homes approved by a special committee of the Medical Society and so acceptable to the medical profession."

EVALUATION OF NURSING HOMES

In all, some 81 separate homes and institutions located in the District of Columbia, Maryland, and Virginia were identified by the 129 physicians practicing in Washington who indicated having used such facilities within the past 2 years. As seen in table 2, this included 63 proprietary nursing homes, 8 voluntary and 3 tax-supported institutions. It was not possible to identify 7 facilities from the limited information given. These seemed to fall into the classification of proprietary nursing homes. It may be that one or more of these has already been included in the earlier listing, but this possible duplication would not appear to have any significance.

TABLE 2

Type of Nursing Home

	D. C.	Md.	Va.	Total
Proprietary nursing homes	29	29	5	63
Voluntary (nonprofit) institutions	5	3	0	8
Tax-supported institutions	1	1	1	3
Positive identification unknown	6	1	0	7
Total	41	34	6	81

TABLE 3

Medical Care and Medical Records

	D. C.—29			Maryland—29			Virginia—5		
	Yes	No	Not Known	Yes	No	Not Known	Yes	No	Not Known
Physician on call	11	13	5	19	8	2	3	1	1
RN on duty	17	7	5	23	6	0	3	1	1
Adequate personnel	23	3	3	28	1	0	5	0	0
Medical chart kept	19	8	2	27	1	1	2	2	1
Order sheet kept	20	7	2	26	1	2	2	2	1

The focal point of interest of the Committee on

TABLE 4

Evaluation of Homes

	D. C.—29			Maryland-29			Virginia—5		
	Good	Adequate	Unsatisfactory	Good	Adequate	Unsatisfactory	Good	Adequate	Unsatisfactory
Sanitation*	11	12	5	21	7	1	2	3	0
Surroundings	10	13	6	20	8	1	2	2	1
Safety†	9	15	2	15	13	1	2	3	0
Diet†	11	9	6	19	10	0	2	3	0
Indoor recreation†	2	10	14	5	17	7	1	3	1
Outdoor recreation‡	0	7	16	8	11	10	1	3	1

* No rating given for 1 in D. C.

† No rating given for 3 in D. C.

‡ No rating given for 6 in D. C.

Public Health at this time is on the proprietary nursing home as a resource to meet community needs.

The number of times a particular home was listed as having been used varied considerably. The range in the District of Columbia and Maryland was the same, namely 1 to 20 times, whereas in Virginia the range was 1 to 7 times.

From the individual replies, a composite was prepared of the group of proprietary nursing homes operated in the District of Columbia, Maryland, and Virginia, respectively, based on majority opinion. Of necessity, the summaries (tables 3, 4 and 5) are not a precise composite of the physician's evaluation. At times, subjective judgments have been made in order to counterbalance seemingly conflicting evidence, or where numerically it was not possible to determine a fixed majority position or opinion.

TABLE 5

Monthly Rates

	D. C.	Md.	Va.
$100–149	3	1	0
150–199	2	4	3
200–249	12	14	0
250–299	3	5	1
300–349	4	1	0
350–399	1	1	0
Over $400	0	1	0
Not known	4	2	1
Total	29	29	5

In regard to these tables certain general observations should be made. There was some inconsistency between the negative generalizations and comments made by many physicians and their own evaluation of the particular nursing homes used. Evaluations tended to be more favorable than might have been expected. This fact suggests the likelihood that while the individual physician may be critical of and concerned about the nursing home situation in general, he would be inclined to view the homes used or suggested by him for his own patients in a more favorable light.

Another factor which should be taken into account is how often the physician visited the homes mentioned. Frequency of visits to a home would affect the physician's familiarity with surroundings, operation and management of the home, and observation of general activities.

In general the nursing homes in Maryland were rated a little higher than those located in the District of Columbia.

On the Lighter Side

Dr. Henry L. Darner is a man of many talents. Essentially he is a surgeon and a good one; but in addition to that he is a very charming and witty essayist and public lecturer. He is also a traveler of no mean experience, and to top it all he is one of the best professional amateur picture-snappers in medical captivity today.

Dr. Darner has photographed beautiful Bermuda, Denmark, Holland, Ireland and Spain, and has taken a million other pictures along the highways and byways and in between.

The Doctor's *modus operandi* is coolly calculated and exact. He develops a sudden, unexplained yen to see some one particular country, island or kingdom. This innocuous yearning is encouraged by constant thought on the matter, until pretty soon the galling burden of his daily medical practice begins to have its dolorous effect on his mind as well as on his body. At this point he usually decides to go to New York just to talk, mind you, to the Travel Bureau about some in-the-future itinerary. (He believes that by giving in to this compulsion to travel he will get it out of his system.)

In New York Dr. Darner carefully outlines to the Travel Man what he would like to see and where he would like to go—if, he reasons, it were possible for him to go! The Travel Man sees through this rationalization and in turn cheerfully outlines a beautiful itinerary with all the stops wide open. This, of course, is the wrong advice to cure anyone of the desire to travel and the helpful Travel Man knows it. This information gives Dr. Darner a real good feeling, and he is convinced that nothing will cure him of this urge to travel but to exploit it to the fullest. He goes home and searches the literature of the country. He finds out something of its past history; he nibbles on the facts of its present status, political, economical, and social. He reads about all of the places of interest. This is still the incipient stage of the disease.

The second stage is introspection. Dr. Darner speaks German and Mrs. Darner speaks French; therefore, with the English they have at their command there will not be much of a language barrier. Packing is no problem. His office can be handled by a colleague. The fever breaks and Dr. Darner purchases the necessary tickets for his trip.

The date of sailing arrives. At the point of disembarkation the Doctor rents a small foreign car, thereby assuring himself of a leisurely journey to all of the interesting cities, towns, and out-of-the-way places that he has read about.

The Darners usually stay overnight in some small hotel, or, if need be, in a local inn along their travel route. In this way Dr. Darner can meet and talk to the natives, observe their ways in their own surroundings, and snap their pictures. This arrangement is also economical because the small hotels and inns do not charge as much as the larger ones in the big cities.

The food at the inns is staple, but there is no menu to check. For breakfast it is always the same—cold cuts, cheese, bread, and black coffee or tea. You eat it or not as you wish. Dinner is fancier. There is a meat or fish dish, and potatoes are prepared in three different ways. Of course, there is always bread, black coffee or tea. Don't ask for what you do not see—they don't have it.

If some particular food doesn't agree and you suddenly get the cramps followed by the urge, you just trust to Lady Luck and your timing. There is only one toilet to serve the entire inn. Such a set-up could cause all sorts of crises!

When it rains the Darners remain in the village or the town for a couple of days and get as many indoor shots as possible. When the sun shines they continue on their way, snapping pictures as they go.

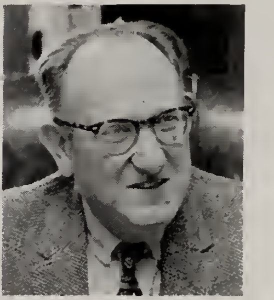
The secret behind those wonderful pictures that Dr. Darner takes is natural ability and photographic sense. He uses a Leica camera with Kodachrome film and takes 3 pictures of each subject. One he exposes according to the reading on the light meter, one he underexposes, and one he overexposes. When the finished product arrives he mounts the best one for his collection. The mounting is done by Dr. Darner himself, thereby insuring excellence of projection.

Dr. Darner's pictures are superior because he has learned to correctly blend the right scene with the right camera with right exposure under the right light conditions. This combination, with the necessary filters to suit all situations, makes good pictures for enjoyable viewing. I highly recommend Dr. Darner's pictures and his lectures. They are well worth an evening of your time.

J. Earl Kadan, M.D.

THE DOCTOR'S HUMAN RELATIONSHIPS*

ERNEST DICHTER, Ph.D.
President, Institute for Motivational Research, New York City



Dr. Dichter

In a study we completed several years ago for the California Medical Association and the Alameda County Medical Association, we were able to isolate and analyze some of the practical steps the medical profession can take to improve its human relationships. In other studies additional findings on this subject indicate the need for a better understanding between doctors and the general community as well as between doctors and their individual patients.

The best place to begin developing this understanding is with the doctor himself, for we cannot hope to change the attitude of the population at large without first analyzing the doctor's position and function among people.

The doctor's role is a combination of idealism and commercialism which often causes conflict for both doctor and patient. While the desire to serve mankind is an important ingredient in the selection of a career in medicine, there are undoubtedly doctors who enter one or another branch because of the high remuneration it promises. Moreover, every doctor recognizes that, practically speaking, he must concern himself with earning a living as well as with serving humanity. He is inclined to believe that the long and arduous training he must have in order to qualify entitles him to a higher salary when he begins his practice. At the same time he recognizes that his patients are fee-conscious, that they consider medical fees to be high—even exorbitant—and that they are inclined to view the medical profession in part or in whole as vastly overpaid.

Recently a county medical society decided to raise fees for office calls and home visits to recompense doctors for rising living costs. The fact that a vast majority of county residents, as well as editorial writers in local newspapers, opposed the increase is indicative of the intense feeling that exists on this matter.

Part of the explanation for this widespread disapproval of medical fees lies with the medical profession itself, and it is a psychologic problem which the profession must recognize. Doctors—all of them—are felt to be a part of a clique. To many it is almost a secret society, with rules and taboos, even a language of its own. The patient is excluded from this clique. The patient wants not only understanding and sympathy, but the right to participate in his treatment, by knowing scientifically what is wrong and how it should be handled. There is little wonder that the resentment he feels against this all-powerful clique results in criticism of fees, the only tangible factor in the doctor-patient relationship.

Here are a few practical guides to improving this relationship:

1. *Relax and learn to accept yourself.* The medical profession can do much to help the doctor resolve his own conflicts about his role. Through lectures and pamphlets the doctor can be made to understand that he is, after all, a person with material aspirations and needs as well as with ideals.

2. *Recognize the patient's right to information.* People are more sophisticated today than they once were, and they ask a great many more questions. They have read medical articles, they recognize some of the terminology, and they are unwilling to accept the unquestionable authority of the doctor. The doctor who treats his patients as if they are intelligent, aware people with a perfect right to understand the diagnosis and the treatment prescribed will find his patients responding with acceptance and with loyalty.

3. *Establish a continuous relationship.* In many areas doctors have begun to recognize the need for a continuous relationship—not simply treatment when the patient is ill, but regular examinations to maintain good health. This is a sensible practice from a physical point of view and is psychologically correct as well, since it is an indication on the part of the doctor of his constant interest in his patients' welfare. A simple reminder that it is time for a check-

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* Summary of address delivered in Washington, D. C., March 27, 1958, during the Forum on Medical Economics sponsored jointly by the Medical Council of the Washington Metropolitan Area and the Wm. S. Merrell Company of Cincinnati, Ohio.

up should be a part of every doctor's office procedure.

4. *Meet the fee question honestly.* Remember that patients resent fees which are tied to the saving of a life or the restoration of their health. To them this approach smacks of "blackmail." Patients also resent being billed on the basis of whatever "the traffic will bear." They want standard fees which are the same for everyone. They accept the doctor's need to make a living. They do not, however, accept the same increased costs for health and medical care that they accept for housing, for clothing, for food, for entertainment. They expect and get more from their doctor in terms of medical care, but they still resent increased costs. It is here that a general educational program is needed, and the medical profession could do much to show the public why increased costs for medical care are necessary, and actually how slight they have been compared to other increases.

5. *Recognize your community role.* Despite the changes which have occurred in medicine, the role of the doctor in the community is still a leading one. The doctor is a figure of importance. People consider him a community leader. They tend to judge him by his degree of interest in his community and also by such symbols of status as the kind of car he drives, the kind of home he lives in, etc. The doctor must decide for himself the kind of public image of himself he wishes to create. To create the proper image in terms of his practice and his community, he must recognize that he is a public figure, especially in a small community; and he must also recognize the standards and the needs of his patients.

This list of practical guides can be greatly enlarged, and can prove immensely helpful to the future of the medical profession if doctors can consider their role a segment of a much larger frame of reference, that of American democracy. Within this larger framework questions of authority versus equality and partnership become clear and understandable. These guides are steps in the growth from immaturity to maturity. More mature doctors will produce more mature patients, and both, of course, contribute to a greater maturity in every area of American life.

PHYSICIAN SURVEY OF REHABILITATION SERVICES

PRESTON A. McLENDON, M.D.
Chairman, Council on Rehabilitation

All Active members of the Medical Society of the District of Columbia, together with members of the Medical Societies of Montgomery County and Prince Georges County in Maryland, Alexandria, Arlington County, and Fairfax County in Virginia, are being asked to furnish information to the Council on Rehabilitation through a survey form mailed to each physician. This survey is an important phase of an overall study of rehabilitation services and needs in the Washington Metropolitan Area by the Council on Rehabilitation.

As has been reported in previous issues of MEDICAL ANNALS, the Council on Rehabilitation was organized in 1955 by the Medical Society of the District of Columbia with the coöperation of the Medical Societies of Montgomery County and Prince Georges County in Maryland, and Alexandria, Arlington County, and Fairfax County in Virginia. The Council comprises 32 physicians appointed by their respective medical societies. Its formation arose from the need to identify rehabilitation problems in the Washington Metropolitan Area; from the lack of adequate information about the numerous agencies offering some type of service to the handicapped; and from the recognition by the medical profession of its responsibility to assume more active participation in community planning for the handicapped and disabled.

With the support of a demonstration grant from the Office of Vocational Rehabilitation, Department of Health, Education, and Welfare, the Council on Rehabilitation launched a special study in June 1956. The purpose of the study was to review existing rehabilitation programs and facilities of the Washington Metropolitan Area; to assess present and future needs; and to analyze and demonstrate the role of local medical societies in total rehabilitation planning.

Using a 13-page schedule as guide, personal interviews have been held with some 150 agencies, public and private, to gather data on their rehabilitation services and to ascertain what each saw as unmet needs or gaps in service for the handicapped. Coding and preliminary analysis of agency data have now been completed.

From the outset the physician's stake in the rehabilitation partnership has been an integral concept of the project. The Council on Rehabilitation was of the opinion that its picture of rehabilitation needs would be one-sided if it confined the study merely to the viewpoint of the agencies in the field. The opinion, and the experience, of the physician in relation to organized rehabilitation services in the community—present facilities and future needs—are important aspects of a sound evaluation.

For this reason, a survey form has been mailed to the Active membership of the 6 coöperating Medical Societies. The questions call for rough estimates and opinions only. The information derived from the physician survey will be an invaluable contribution to the overall study of the Council on Rehabilitation. It is hoped that these results will provide a firmer basis for more realistic and coöperative planning by public and voluntary agencies and by the medical profession itself in the field of rehabilitation.

Members of the Medical Society of the District of Columbia who were appointed to serve on the Council on Rehabilitation include Drs. John P. Adams, Hill Carter, Thomas F. Collins, Hugh H. Hussey, Zigmond A. Lebensohn, Preston A. McLendon, Robert E. Moran, Howard Marshall Payne, W. Robert Perkins, Jr., Charles D. Shields, G. Victor Simpson, Harold Stevens, S. Ross Taggart, Allan E. Walker, Jr., and Charles S. Wise. In addition, representatives of local organizations and allied professions in the District of Columbia and throughout the area have been drawn in to assist with the project.

This demonstration project of the Council on Rehabilitation of the Washington Metropolitan Medical Societies, with the support of the Office of Vocational Rehabilitation, is a pioneer effort among medical societies in the United States. It is being followed with much interest, not only by other medical groups but also by a variety of community agencies throughout the country.

Headquarters for the Council on Rehabilitation are provided by the Medical Society of D. C. at 1718 M Street, N.W., Washington. Present full-time staff consists of Miss J. J. Albrecht, Executive Secretary; Mr. James E. Gardner, Research Associate, and Miss R. Susan Murphy, office secretary. Individual physicians who may have questions or wish information on rehabilitation resources are invited to call the office—District 7-3111.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, July 28, 1958, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

Eugene R. Atherton, 3800 Cathedral Avenue, N.W.
John J. Canary, 3811 Beecher Street, N.W.
Prokopes Colevas, 5509 13th Street, N.W.
William B. Glew, Washington Clinic
James P. Hartley, 5805 Augusta Lane, N.W.
Murdock Head, 5909 Osceola Road, N.W.
Arthur P. Hustead, Washington Clinic
George F. Mahoney, 2726 Connecticut Avenue, N.W.
Robert R. Nelson, 4112 Grant Street, N.E.
Edward J. Pacious, 1746 K Street, N.W.

Associate Members

Peter H. Bulle, 3801 Connecticut Avenue, N.W.
Marion D. M. Faris, Leesburg, Va.
Thomas M. Foley, Jr., 4209 East-West Highway, Chevy Chase, Md.
Patrick Leary, 1801 Eye Street, N.W.
Herbert L. Ley, Department of Bacteriology, George Washington University
A. Herbert Maser, 8218 Wisconsin Avenue, Bethesda, Md.
Robert B. Neu, 6141 Lee Highway, Arlington, Va.
Bernard H. Zeavin, 312 South Washington Street, Alexandria, Va.

Resident-Intern Members

Renald A. Cote, 2515 K Street, N.W.
Norman C. Kramer, 553 Southampton Avenue, Silver Spring, Md.
Robert Kramer, 1006 Quebec Terrace, Silver Spring, Md.

News and Personals

MEETINGS

Sibley Memorial Hospital is sponsoring an all-day Seminar on The Community Hospital and Medical Education, to be held Thursday, September 25.

Dr. Richard F. Manegold, Educational Director of the Hospital, announces the following program:

10:45 A.M.: The Current Status of Medical Educaton Beyond Medical School

Edward L. Turner, M.D.
Secretary, Council on Medical Education and Hospitals, American Medical Association; Former Professor of Medicine and Dean of the Medical School, University of Washington; Former Professor and Chief of Medical Service, American University, Beirut, Lebanon; and Past President, Meharry Medical College

11:15 A.M.: The Place of the Community Hospital in Graduate Education

Alexander M. Burgess, M.D.
Director of Professional Education, Miriam Hospital, Providence, R. I.; Memorial Hospital, Pawtucket, R. I.; Newport Hospital, Newport, R. I.

12:00 Noon: The Private Patient in Medical Education

E. Stanley Crawford, M.D.
Instructor in Surgery, Baylor University College of Medicine; Attending Surgeon, Jefferson Davis and Veterans Administration Hospitals, Houston

12:30 P.M.: The Role of the Community Hospital in the Pursuit of Medical Excellence

Jean A. Curran, M.D.
Trustee and Consultant, Bingham Associates Fund; Former Dean and President, Long Island College of Medicine

1:00 P.M.: Luncheon

2:00–3:00 P.M.: Round Table Discussion

1. Methods of giving house officers real responsibility in patient care.
2. The problem of special examinations.
3. Basic Science instruction.
4. The visiting physician's medico-legal responsibilities.

GENERAL NEWS

Dr. Herbert P. Ramsey, Chairman of the **Executive Board of the Medical Society of the District of Columbia,** presided at the regular meeting of the Board on July 28. Dr. Ralph M. Caulk reported on the negotiations between representatives of the Medical Society and the Department of Defense prior to renewal of the Medicare Contract, which expired on July 1. Following his report the Board authorized the President and Secretary of the Society to sign an agreement with the Department of Defense extending the Society's participation in the Department's Medical Care Program for another year. The Board also voted to commend Dr. Caulk, Dr. C. Willard Camalier, Jr., and Dr. Edward W. Nicklas for the manner in which they had conducted negotiations with representatives of the Department of Defense.

Dr. Raymond T. Holden reviewed the proceedings of the House of Delegates of the American Medical Association at the San Francisco meeting in June. A copy of his report is published in this issue of the Medical Annals. The Board accepted the report submitted by the delegates and the Secretary and commended them for their effective representation of the Society.

At the request of Dr. J. D. McCarthy, Chairman of the Council on Medical Service of the AMA, to send a representative to a planning conference in the field of aging, to be held in Chicago, September 13–14, President Watts selected Dr. Jack Kleh, with the approval of the Board.

President Watts submitted the following names to serve on the committees and boards indicated:

Committee on Blood: Dr. John A. Reisinger, *Chairman*, succeeding Dr. Frank W. Konzelmann, resigned; Dr. Thomas M. Peery, *Vice Chairman*

Committee on Industrial Health: Dr. Leonard T. Peterson, *Chairman*, succeeding Dr. R. Lomax Wells, resigned; Dr. J. Rogers Young, *Vice Chairman*

Medicare Review Board: Dr. William F. Burdick and Dr. Edward W. Nicklas, to succeed Dr. C. Willard Camalier, Jr., and Dr. William K. Billingsley, Jr.

Cancer Morbidity Review Board: Dr. Joseph B. Sheffrey, representing Georgetown University Hospital; Dr. Jean E. Paquin, representing Providence Hospital; and Dr. Alan W. Winshel, representing D. C. General Hospital.

The Board approved these appointments. It also voted that the Committee on Constitution and By-laws be requested to prepare an amendment for the Board's approval which would provide for an increase in the membership of the Cancer Morbidity Review Board.

The Board gave its endorsement to the Greater Southeast Community Hospital Building Fund campaign.

Brig. General Thomas W. Mattingly, Chief of the Department of Medicine, Walter Reed Army Hospital, retired from active military duty, August 31, after almost a quarter-century service in the Army Medical Corps. On September 1 he assumed the directorship of medical education and training of residents and interns at the Washington Hospital Center.

General Mattingly, a graduate of Georgetown University School of Medicine, entered active military duty in 1934. He was assigned to Walter Reed Army Hospital, where he served on the Medical Service and in the Cardiology Section. In 1951 he was again assigned to Walter Reed, this time as Chief of the Cardiology Service, which he has developed into one of the outstanding cardiology services in the United States. He has pioneered in the use of teaching aids for group instruction in cardiology, and has also conducted extensive clinical research in cardiovascular diseases.

While on duty at Walter Reed, General Mattingly has been consultant to the President's physician in the care of the Chief Executive. He has also served as Consultant in Cardiology to the Surgeon General, as representative of the Assistant Secretary of Defense on the Advisory Heart Council of the National Institutes of Health, and as Clinical Professor of Medicine at Georgetown.

Maj. General Paul I. Robinson, Executive Director of the Office for Dependents' Medical Care, Office of the Surgeon General of the Army, is now associated with the Metropolitan Life Insurance Company as Coördinator of Medical Relations. He retired from the Army, August 31, after more than 30 years of active service. General Robinson, who has been Executive Director of the Medicare Program since it was established in 1956, has been succeeded by Colonel Floyd L. Wergeland, M.C., U. S. A.

Brig. General Sam F. Seeley, Chief of the Professional Division of the Office of the Army Surgeon General, retired on July 31 at the close of 31 years' service. General Seeley was one of the pioneers of intra-arterial transfusions and has made a number of contributions to vascular surgery.

During World War II, from November 1941 to September 1942, he was Executive Officer to Dr. Frank H. Lahey in the Procurement and Assignment Service of the Manpower Commission in Washington.

General Seeley is now affiliated with the National Research Council as a professional associate.

Dr. Benjamin B. Wells, Director of Professional Services at the Veterans Administration Hospital in New Orleans, has been appointed to head VA medical education services in Washington, D. C. Formerly Dean of the University of Arkansas School of Medicine, he succeeds Dr. John C. Nunemaker, who left VA, August 1, to become Associate Secretary of the American Medical Association's Council on Medical Education and Hospitals.

The Joint Council to Improve the Health Care of the Aged has named **Howard I. Wells, Jr.,** of Chicago, as its Executive Secretary. The Joint

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
August 15	Dr. Frank S. Ashburn	Chest Surgery	Graduate Nurses, Doctors Hospital
August 22	Dr. William Kurstin	Diabetes	
August 25	Dr. George Maksim	Youth Fitness	Annual Meeting of American Podiatry Association
	Dr. James P. Scanlon		
August 29	Dr. John J. Andrina	New Apparatus	Graduate Nurses, Doctors Hospital
September 5	Dr. Robert W. Sjogren	New Drugs	
September 12	Dr. Harry L. Claud	Emergencies	

Council was established in April by four organizations, the American Medical Association, the American Hospital Association, the American Dental Association, and the American Nursing Association. Offices of the Council are located at 139 North Clark Street, Chicago. Mr. Wells comes to the Council from the American Association for Maternal and Infant Health, which organization he has served as Executive Secretary since 1954.

The National Foundation for Infantile Paralysis has announced that it will drop the reference to a specific disease in its title and will be known in the future as **The National Foundation.** Projected plans center on the development of an organized voluntary force in the fields of medical research, patient aid, and professional education. The first new goals will be research and eventually a patient-aid program in arthritis and congenital malformations. Virus research will be continued and expanded as will the investigations currently being conducted into the disorders of the central nervous system. The traditional March of Dimes conducted annually in January will continue to be the source of funds.

The Children's House of Hillcrest Children's Center announces that **Dr. James L. Hatleberg** assumed the directorship of the agency on July 1, 1958. Children's House is a nonprofit treatment center for emotionally disturbed children of preschool and elementary school age. It is one of the agencies which shares in the United Givers Fund.

PERSONALS

Dr. Jean H. Menetrez has been appointed to the staff of the Alcoholic Rehabilitation Division of the D. C. Department of Public Health, effective July 14. Dr. Menetrez will be Acting Chief of the Alcoholic Rehabilitation Division, which is located at 2227 M Street, N.W., relieving Dr. Eleanor E. Short, who is now Assistant Chief of the Adult Mental Health Division.

Dr. Menetrez was recently elected to membership in the D. C. Medical Society. A graduate of McGill University (1950), he has been associated with the Washington Institute of Mental Hygiene during the past year.

Dr. R. Lomax Wells is Chairman of the Medical Advisory Committee to the American Association of Industrial Nurses. The election took place at the joint meeting of the Board of Directors and the

Medical Advisory Council of AAIN, held on April 21 during the Industrial Health Conference.

Dr. Wells, who is Medical Director of the Chesapeake and Potomac Telephone Companies, has served as a member of the Board of Directors of the Industrial Medical Association and is currently Chairman of the Section on Industrial Medicine of the Southern Medical Association.

Dr. George E. Armstrong, of New York, is the new Chairman of the Veterans Administration Special Medical Advisory Group. The Group meets quarterly to advise the Administrator of Veterans Affairs on matters relating to medical care and treatment of veterans. Dr. Armstrong, formerly Surgeon General of the Army and an Honorary member of the District Medical Society, is Vice President for medical affairs of New York University and Director of the New York University-Bellevue Medical Center.

Dr. Richard T. Sullivan has been elected Chairman of the Public Health Committee of the Washington Board of Trade, succeeding Dr. Oscar B. Hunter, Jr.

At the Convocation of the American College of Chest Physicians, in the Fairmont Hotel in San Francisco, June 21, Fellowship certificates were presented to 160 physicians, among them **Dr. Leslie H. French** of Washington.

Dr. Kenneth R. Nelson, who organized and developed the first Red Cross Blood Bank in the District of Columbia, has completed residency training in pathology at the Washington Hospital Center and was recently certified by the American Board of Pathology in clinical pathology and pathologic anatomy.

Dr. Lawrence M. Drennan, Jr., who was a member of the District Medical Society from 1943 to 1951, has been appointed Medical Director of the United Fruit Company. In this position he will supervise operations of the Company's 15 hospitals and 100 dispensaries in Central and South America.

Dr. Drennan, a graduate of Georgetown University School of Medicine, was in general practice in Washington before he became associated with United Fruit in December 1950. His father, the late Dr. Lawrence M. Drennan, Sr., also a graduate of Georgetown, headed medical units of the United Fruit Company in South and Central America for 25 years before his retirement.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Handbook of Medical Treatment, 6th ed. Edited by MILTON J. CHATTON, M.D., Director of Medical Institutions, Santa Clara County, California; Superintendent of Santa Clara County Hospital, San Jose, California; Assistant Clinical Professor of Medicine, University of California School of Medicine, San Francisco; SHELDON MARGEN, M.A., M.D., Associate Research Biochemist, Department of Physiological Chemistry, and Clinical Instructor in Medicine, University of California School of Medicine, San Francisco; AND HENRY BRAINERD, M.D., Professor of Medicine and Chairman, Department of Medicine, University of California School of Medicine, San Francisco, and Physician-in-Chief, University of California Hospitals, San Francisco. Price, paper, $3.50. Pp. 569. Los Altos, Calif.: Lange, 1958.

Clinical Obstetrics and Gynecology. A Quarterly Book Series. Vol. 1, No. 2. Toxemias of Pregnancy, edited by LOUIS M. HELLMAN, M.D. Fibromyomas of the Uterus, edited by ROBERT A. KIMBROUGH, M.D. Price, $18.00 subscription for 4 consecutive numbers. Pp. 544. New York: Hoeber-Harper, 1958.

How to Live with Diabetes. HENRY DOLGER, M.D., Chief, Diabetes Clinic, Mt. Sinai Hospital, New York, AND BERNARD SEEMAN. Price, $3.50. Pp. 192. New York: Norton, 1958.

Physican's Handbook, 10th ed. MARCUS A. KRUPP, M.D., Associate Clinical Professor of Medicine, Stanford University School of Medicine, San Francisco; Director, Palo Alto Medical Research Foundation, Palo Alto; NORMAN J. SWEET, M.D., Associate Professor of Medicine, University of California School of Medicine, San Francisco; ERNEST JAWETZ, Ph.D., M.D., Professor of Microbiology and Lecturer in Medicine and Pediatrics, University of California School of Medicine, San Francisco; AND CHARLES D. ARMSTRONG, M.D., Assistant

Clinical Professor of Medicine, Stanford University School of Medicine, San Francisco. Price, paper, $3.00. Pp. 500. Los Altos, Calif.: Lange, 1958.

Science and Education at the Crossroads—A View from the Laboratory. Joseph W. Still, M.D. Introduction by Malvina Lindsay. Price, $3.75. Pp. 140. Washington, D.C.: Public Affairs Press, 1958.

Diseases of the Esophagus. J. Terracol, Professor of the Faculty of Medicine of Montpellier, France, and Richard H. Sweet, Associate Clinical Professor of Surgery, Harvard Medical School. Price, $20.00. Pp. 682, with 408 illustrations. Philadelphia: Saunders, 1958.

Ciba Foundation Colloquia on Endocrinology. Volume 12. Hormone Production in Endocrine Tumours. G. E. W. Wolstenholme, O.B.E., M.A., M.B., B.Ch., and Maeve O'Connor, B.A., Editors for the Ciba Foundation. Price, $9.00. Pp. 351, with 58 illustrations and Cumulative Index to Volumes 1–12. Boston: Little, 1958.

EDWARD J. STIEGLITZ, B.S., M.S., M.D., F.A.C.P.

(1899–1958)

Dr. Edward J. Stieglitz, who gained international recognition for his contributions in the fields of geriatrics and gerontology, died, June 12, 1958, in Suburban Hospital. He lived at 2122 Massachusetts Avenue, N.W.

Dr. Stieglitz was born in Chicago, Ill., June 6, 1899, to Julius Stieglitz, who was Professor of Chemistry at the University of Chicago, and Anna Stieffel Stieglitz. He was educated in the Chicago schools, receiving the degrees of Bachelor of Science and Master of Science from the University of Chicago and his medical degree from Rush Medical College in 1922. He interned at Presbyterian Hospital in Chicago the following year, returning to Rush for postgraduate study in internal medicine.

Dr. Stieglitz had a long teaching career. Beginning in 1917 at the University of Chicago, he was successively Assistant in Anatomy, Assistant in Pathology, and Associate in Anatomy (Histology); he later returned to the same University as Research Associate in the Department of Chemistry (1934 to 1938). At Rush Medical College he was Clinical Instructor in Medicine, 1926–27; Assistant Clinical Professor of Medicine, 1928–35; and Associate Clinical Professor of Medicine from 1935 to 1938.

He was internist for 3 Chicago hospitals in the early years of his career: assistant attending internist at Presbyterian, 1926–38; attending internist at Chicago Lying-in Hospital, 1926–31; and attending internist at Chicago Memorial Hospital from 1932 to 1938.

EDWARD J. STIEGLITZ, M.D.

He came to Washington as Research Associate in charge of investigations in gerontology at the National Institutes of Health in 1940, and entered private practice in offices at 1726 Eye Street, N.W., in 1941. He had taught at the Washington School of Psychiatry since 1945.

For more than 25 years he specialized in the field of gerontology. A lengthy interview with Dr. Stieglitz was published in the *U. S. News & World Report*, February 14, this year, wherein he was designated "a foremost authority in the study of aging." He was consultant in geriatrics to Chestnut Lodge in Rockville, Md.; consulting internist at Suburban

Hospital, Bethesda; consulting physician at the Washington Home for Incurables; and Chairman of the Advisory Council to the Commission on Chronic Illnesses. He was also consultant to the Veterans Administration and St. Elizabeths Hospitals.

Dr. Stieglitz was consulting editor of the journal, *Geriatrics*, and was a member of the editorial board of *The American Journal of Clinical Nutrition*. He was the author of hundreds of scientific papers and seven books.

He was elected to Active membership in the District Medical Society in 1942. He was a Fellow of the American College of Physicians and a member of the American Medical Association, the Washington Academy of Medicine, and the American Heart Association.

In an editorial which appeared in the *Washington Post and Times Herald*, June 17, he was described as "one of the respected pioneers in gerontology" who "stressed the importance of looking forward to life rather than backward to youth. The increased life span in America makes more pressing than ever the need for adults to educate themselves and prepare for the opportunities of retirement. One major task is to dispel the encrusted superstitions that make old age a prospect of dread and defeat. Through his medical studies and readable articles, Dr. Stieglitz contributed significantly to this quest for a saner approach to what should be the best years of our lives."

He is survived by a daughter, Dr. Jean Stieglitz, of Chicago; a son, James E. Stieglitz, of Ithaca, N. Y.; and a sister, Dr. Hedwig Kuhn, of Hammond, Indiana.

CHARLES FRANCIS McCAFFREY, M.D.

(1906–1958)

Dr. Charles F. McCaffrey, Assistant Director of Public Health for Arlington County, Virginia, died in Arlington Hospital, June 25, 1958. He was an Associate member of the D. C. Medical Society.

Dr. McCaffrey was born, October 19, 1906, in Somerville, Mass., to a physician, Dr. Charles Francis McCaffrey. His mother was Margaret Brosnahan McCaffrey. He received his early education at Phillips Exeter Academy and he attended Harvard College. After receiving his degree in medicine from Georgetown University School of Medicine in 1933, he interned at Boston City and Cambridge City Hospitals, and in 1935 served as resident physician at Children's Hospital in Washington, D. C.

Dr. McCaffrey was appointed Assistant Surgeon with the rank of Lieutenant (j.g.) in the U. S. Naval Reserve in 1937 and later in the year transferred to the Regular Navy. He advanced to the rank of Commander in 1945. Designated flight surgeon in 1939, Commander McCaffrey spent most of his 13 years' active duty assigned to Naval air stations ashore and aircraft carriers at sea. During World War II he served aboard the *U.S.S. Wasp* and the *U.S.S. Yorktown*. He was awarded the Presidential Unit Citation for service aboard the latter. Prior to his retirement in 1951, because of physical disability, he was serving at the Marine Corps Air Station at Cherry Point, N. C.

Dr. McCaffrey was elected to Associate membership in the District Medical Society in 1933. He was a member of the American Medical Association and the Aero Medical Association. He also belonged to the Army-Navy Country Club and was a member of the Arlington Volunteer Fire Department.

Surviving him are his wife, Mrs. Lois Gaylor McCaffrey, and a son, Charles Francis McCaffrey, Jr., living at their home at 4739 North Washington Blvd., Arlington, and a brother, Albert J. McCaffrey, of Newport, Rhode Island.

Chlorpropamide for Diabetes Mellitus—Sugar, Thomas and Tatlier

(*Continued from page 450*)

CONCLUSIONS

Although the number of cases reported here is too few and the period of observation too short for statistical evaluation, the following facts are noteworthy:

1. Many adult diabetics requiring daily insulin injections or who were not responsive to tolbutamide were controlled satisfactorily with chlorpropamide alone.
2. A priming dose seems unnecessary. Most patients required 1.0 Gm. or less per day.

3. Toxicity to chlorpropamide was not serious. Hypoglycemic symptoms and weakness were prominent side-effects. These could be avoided in all probability by starting with small doses and working up to an effective level.

4. Unstable diabetics of any age are poor candidates for control with chlorpropamide.

BIBLIOGRAPHY

1. Loubatieres, A.: Analysis of mechanism of hypoglycemic action of p-aminobenzene-sulfamido-isopropylthiodazol. Compt. rend. Soc. de biol., 1944, **138**, 766.
2. La Barre, J., and Reuse, J.: Concerning the hypoglycemic action of certain sulfonamide compounds. Arch. néerl. de physiol., 1947, **28**, 475.
3. Colwell, A. R., Jr., Colwell, J. A., and Colwell, A. R., Sr.: Intrapancreatic perfusion of the antidiabetic sulfonylureas. Metabolism, 1956, **5**, 749.
4. Nelson, N.: Photometric adaptation of Somogyi method for determination of glucose. J. Biol. Chem., 1944, **153**, 375.
5. Sugar, S. J. N.: Clinical experience with more than 100 patients treated with Orinase. M. Ann. District of Columbia, 1957, **26**, 293.
6. Gerstenberg, E., Hasselblatt, A., and Schmidt, G.: Effects of high doses of the oral antidiabetic substance D 860 (Artosin, Rastinone) on the neuromotor functions, especially of the spinal cord. Arch. exper. Path. u. Pharmakol., 1957, **231**, 407.

Chronic Cor Pulmonale—Heisen

(*Continued from page 472*)

BIBLIOGRAPHY

31. Marks, A., Cugell, D. W., Cadigan, J. B., and Gaensler, E. A.: Am. J. Med., 1957, **22**, 51.
32. Austrian, R., and others: Am. J. Med., 1951, **11**, 667.
33. Baldwin, E. deF., Cournand, A., and Richards, D. W., Jr.: Medicine, 1949, **28**, 1.
34. Baldwin, E. deF., Cournand, A., and Richards, D. W., Jr.: Ibid., 1949, **28**, 201.
35. Baldwin, E. deF., Cournand, A., and Richards, D. W., Jr.: Ibid., 1948, **27**, 243.
36. Wright, G. W., and others, in Symposium on Military Physiology. Digest Series No. 4, 1947, p. 135.
37. McCort, J. J., and Pare, P. J.: Radiology, 1954, **62**, 496.
38. Siltzbach, I. E.: Am. J. Surg., 1955, **89**, 556.
39. Shuford, W. H., Seaman, W. B., and Goldman, A.: A.M.A. Arch. Int. Med., 1953, **92**, 85.
40. Caldwell, I. W., and Aitchison, J. D.: Brit. Heart J., 1956, **18**, 273.
41. Papaemmanuel, S., Papanicolis, I., and Lazarou, P.: Arch. mal. coeur, 1952, **45**, 259.
42. Hardy, H. L.: Circulation, 1954, **10**, 130.
43. Magidson, O., and Jacobson, G.: Brit. Heart J., 1955, **17**, 207.
44. Brenner, O.: Arch. Int. Med., 1935, **56**, 1189.
45. Ring, A., and Bakke, J. R.: Ann. Int. Med., 1955, **43**, 781.
46. Ball, K. P., Goodwin, J. F., and Harrison, C. V.: Circulation, 1956, **14**, 766.
47. Hollister, L. E., and Cull, V. L.: Am. J. Med., 1956, **21**, 312.
48. Hanelin, J., and Eyler, W. R.: Radiology, 1951, **56**, 689.
49. Petch, C. P.: Lancet, 1951, **1**, 1346.
50. Tourniaire, A., Tartulier, M., and Deyrieux, F.: Arch. mal. coeur, 1952, **45**, 448.
51. Owen, W. R., Thomas, W. A., Castleman, B., and Bland, E. F.: New England J. Med., 1953, **249**, 919.
52. Harrison, C. V.: J. Path & Bact., 1948, **60**, 289.
53. Wartman, W. B., Jennings, R. B., and Hudson, B.: Circulation, 1951, **4**, 747.
54. Muirhead, E. E., and Montgomery, P. O.: A.M.A. Arch. Path., 1951, **52**, 505.
55. O'Neal, R. M., and Thomas, W. A.: Circulation, 1955, **12**, 370.
56. Friedberg, C. K.: Diseases of the Heart, 2nd ed. Philadelphia: Saunders, 1956, p. 988.
57. Barnard, P. J.: Circulation, 1954, **10**, 343.
58. Muller, H., in Henke, F., and Lubarsch, O., editors: Handbuch der speziellen pathologischen Anatomie und Histologie. Berlin: Springer, 1928, 3, pt. 1, p. 577.
59. Pryce, D. M.: J. Path. & Bact., 1946, **58**, 457.
60. Mannix, E. P., Jr., and Haight, C.: Medicine, 1955, **34**, 193.
61. Findlay, C. W., Jr., and Maier, H. C.: Surgery, 1951, **29**, 604.
62. Moser, K. M., and Shea, J. G.: Am. J. Med., 1957, **22**, 561.
63. Samuelsson, S.: Acta med. scandinav., 1952, **142**, 399.
64. Schaub, F., Vögtlin, J., and Bühlmann, A.: Cardiologia, 1955, **26**, 209.
65. Fishman, A. P., Turino, G. M., and Bergofsky, E. H.: Am. J. Med., 1957, **23**, 333.
66. Zimmerman, H. A.: J. Thoracic Surg., 1951, **22**, 94.

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Book Reviews

Love, Skill and Mystery—A Handbook to Marriage. Theodor Bovet, M.D. Price, $3.50. Pp. 188. Garden City, N.Y.: Doubleday, 1958.

This is a short but adequately comprehensive book about marriage, written by a Swiss physician of wide clinical experience in the field of marrage counseling. The author addresses the layman and employs a style that is vivid, warm, epigrammatic. Dr. Bovet is graciously introduced to us in an illuminating foreword by David Mace, organizer and former Director of the National Marriage Guidance Council of Britain.

The reviewer has found himself both delighted by Dr. Bovet and considerably disappointed as well. The author displays a stimulating familiarity with those contributions of medicine, psychiatry and the social sciences which have recently shed new light upon many aspects of sex and marriage. The disappointment in his presentation arises from the way his material is used to support a firm devotion to many of the mystical, patriarchal, authoritarian, dogmatic concepts of ancient religious thinking about sex and marriage. Also, the author makes some assumptions about differences in the nature of men and women which, according to present-day psychologic and anthropologic thought, are regarded as probably artifacts of culture rather than truly basic differences between the sexes.

In one important respect this book is altogether astonishing: Never has the reviewer known another devoutly religious author to accept so much that is favorable to the enjoyment of sex in marriage. He is vigorous and convincing in his rejection of antisexual religious puritanism. At the same time he does an outstanding job in demonstrating that mutual sex enjoyment is not the sole basis for sound marriage. His sensitive description of all the emotional and practical values in marriage will be applauded by serious marriage students of whatever philosophic or religious persuasion. Many will regret, however, his insistence that a sensitive and responsible philosophy of sex and marriage is not possible without the acceptance of a specifically religious orientation. Here he commits himself to the very pattern of dogma against which he often speaks in eloquent protest.

The views of Dr. Bovet on such subjects as contraception, sterilization, artificial insemination, abortion, and divorce are colored more by traditional theological thinking than by the secular and humanistic outlook of modern professional thought.

Although Dr. Bovet appears to be familiar with modern dynamic psychiatry it will disturb many psychiatrists that he so glosses over the operation, in marriage interaction, of unconscious, compulsive behavior. His faith in the educational and exhortive religious approaches to marital difficulties will seem naïve to most professional counselors.

All of us in medicine who do marriage counseling sometimes deal with people whose religious convictions are so strong that we are not likely to be useful to them unless we accept their religious orientation uncritically. When confronted by such persons it would be well to remember Dr. Bovet's book, for his is an approach that will make acceptable to deeply religious people many things about sex that could not be accepted by them in any other context. The reviewer is grateful to Dr. Bovet for providing us with a book which answers this need so well.

Walter R. Stokes, M.D.

The Hangover. A Critical Study in the Psychodynamics of Alcoholism. Benjamin Karpman, M.D. Price, $9.50. Pp. 531. Springfield, Ill.: Thomas, 1957.

Dr. Karpman's new book is more than the name implies. It is a study in the psychodynamics of alcoholism and describes the quintessence of degradation (a patient's words) reached by so many alcoholics. The author's thesis is that alcoholism is a product of neurosis and that the nature of the hangover is determined by the emotional predisposition of the patient. These concepts are amply illustrated by long expositions of the reactions following the use of alcohol in 14 alcoholics. These cases demonstrate the alcoholic aura, the blackout during a spree, and the guilt and terror of the hangover period, all of which are features of alcoholism frequently not appreciated by physicians.

In the author's view the difference between a chronic alcoholic and the controlled drinker is the difference in hangovers. The book shows that a study of the hangover can be a valuable method for revealing the chronic neurosis underlying alcoholism. But why, on the basis of a mass of environmental factors, sexual tendencies, multiple emotional factors and mental mechanisms, some neurotics choose alcohol is not yet entirely clear. Further, short of a rarely achieved psychoanalysis, no cure is offered.

The nature of the alcoholic is complex. This text should be helpful to those doctors who are trying to understand alcoholic patients and their hangovers.

Edward L. Rea, M.D.

(*Continued on page 46*)

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(*Continued from page 44*)

Clinical Obstetrics and Gynecology. A Quarterly Book Series. Vol. 1, No. 1. Medical Problems in Pregnancy, edited by Curtis J. Lund, M.D. Management of Endocrine Problems, edited by Allan C. Barnes, M.D. Twenty-four contributors. Price, $18.00 subscription for 4 consecutive numbers. Pp. 288. New York: Hoeber-Harper, 1958.

This is a new and excellent idea for condensing and summarizing the latest thoughts in the various fields of obstetrics and gynecology for the busy clinician. It will be a valuable aid to the doctor who constantly finds himself confronted with a large accumulation of unread literature in his field.

The publisher should be congratulated on the book's beautiful format, with large, easy-to-read print, and its reasonable price.

This book is to be published in 4 volumes, 1 every 3 months, each book to contain 10 to 12 chapters on a major field in obstetrics and a major field in gynecology. Written from the point of view of the practicing physician, for the most part the chapters are precise and to the point. The reviewer was impressed with the lack of statistics, comment, discussion, etc., but rather straight-forward presentation of facts.

Dr. Roy G. Holly's suggestions regarding treatment of anemia in pregnancy seems to reflect my personal clinical experience. The chapter on pregnancy with diabetes emphasizes the problems accompanied by vascular disease and is valuable because of the much larger number of juvenile diabetics who are reaching the reproductive age. The accurate but simple diagrams accompanying the chapter on urinary tract infections are very helpful. It is certainly true that one picture is worth a thousand words. Dr. Allan C. Barnes' chapter on the menopause is excellent. The entire section on Endocrine Problems we found exceptionally illuminating. This should be required reading of all practicing obstetricians and gynecologists.

Albert S. Bright, M.D.

Clinical Enzymology. Edited by Gustav J. Martin, Sc.D. Price, $6.00. Pp. 241. Boston: Little, 1958.

This book is an attempt to give basic background knowledge of some of the more well-known enzymes and their possible uses as diagnostic and therapeutic tools.

The enzymes discussed in most detail are trypsin, chymotrypsin, streptokinase, ribonuclease, desoxyribonuclease, hyaluronidase and cholinesterase. The analysis of the clinical data on the therapeutic parenteral administration of these is well documented, clearly

(*Continued on page 47*)

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Book Reviews

(*Continued from page 46*)

discussed and fair. The conclusion, that further evaluation of each of these enzymes is needed, can certainly be considered sound.

In the chapter on enzyme assays as diagnostic tools, amylase, uropepsin, the phosphatases and transaminase are also discussed. The changes in serum transaminase in myocardial infarction are briefly summarized. However, the usefulness of this determination in liver disease is not mentioned. Since this is now an important adjunct to the usual battery of liver function tests, this is an unfortunate and serious omission.

The discussion of the diagnostic uses of the assays of acid and alkaline phosphatases is very clear and readable and is the most valuable part of the book.

This book brings together in one volume a number of diversified facts about enzymes for which one might have to search otherwise. It is well indexed, also. The chapters dealing with the specific clinical uses of enzymes will be of interest to all physicians.

Ruth L. Kirschstein, M.D.

Neomycin. Its Nature and Practical Application. Selman A. Waksman, Editor; Hubert A. Lechevalier and Burton A. Waisbren, Associate Editors; Robert A. Day, Assistant Editor. Published for The Institute of Microbiology, Rutgers University. Price, $5.00. Pp. 412. Baltimore: Williams & Wilkins, 1958.

This volume is an exhaustive compilation of virtually all that is known about neomycin and its use. Selman Waksman, in whose laboratory neomycin was discovered and developed, has ably edited contributions by 36 competent authors. The book is divided into 4 sections: Microbiological and Chemical Aspects, Antibacterial and Pharmacological Properties of Neomycin, Clinical Uses of Neomycin, and Miscellaneous Uses. Appended are a summary of clinical uses, a list of commercial preparations, and a list of manufacturers. The comprehensive first and second sections and the chapters related to veterinary medicine, animal nutrition and plant diseases, as well as the clinical sections, fit this book for use by a wide range of scientific workers.

Because of its tremendous detail, based on a bibliography of almost 700 papers and numerous supplementary references, this book is obviously not suited for casual reading. However, as a reference work it is excellent. Numerous charts, graphs, and tables, good cross-indexing, and logical organization of its contents make the book a pleasure to use in studying any aspect of neomycin.

Although the various authors approach the subject from different viewpoints, there is a certain amount of repetition, especially concerning the antimicrobial spec-

(*Continued on page 50*)

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1. Thomas, J. W.: Ann. Allergy 16:128, 1958

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Book Reviews

(Continued from page 47)

trum and toxicity of the drug. The summary by Burton A. Waisbren in the introductory chapter to the clinical section aptly condenses a wealth of information. "Neomycin has a wider antibacterial spectrum than any other agent, and has the additional advantage of being rapidly bactericidal and well tolerated by all routes of administration; furthermore, it does not cause hypersensitivity reactions and does not invoke resistant mutants. These attributes make neomycin our best antibiotic for local use. Neomycin should probably be used by the parenteral route only in selected cases because when given intramuscularly or intravenously, it has a significant toxicity for the auditory portion of the eighth nerve and for the kidneys."

George J. Cohen, M.D.

A Textbook of Clinical Neurology, with an Introduction to the History of Neurology, 8th ed. Israel S. Wechsler, M.D. Price, $11.00. Pp. 782, with 179 illustrations. Philadelphia: Saunders, 1958.

This is Dr. Wechsler's new edition, which makes its appearance some 30 years after the first edition.

I have chosen to review some of the newer developments in neurology since obviously one cannot cover all of neurology in a short review.

Electromyography is a definitive diagnostic tool for differentiating lower motor neuron lesions from other disorders causing muscular weakness. It may serve as a prognostic indicator in cases of peripheral nerve injury. Normal muscle has no electric activity at rest. On slight effort potentials of single motor units are recorded. Complete denervation produces no motor unit potentials on attempted volunteer motion. However, spontaneous muscle fibre potentials are noted and are known as fibrillation potentials. These are pathognomonic of muscular denervation. Partial denervation produces isolated motor unit potentials with maximal volunteer motion. Re-innervation produces polyphasic spikes instead of diphasic. Another characteristic of anterior horn cell involvement is the appearance of fasciculations. These are spontaneous motor unit potentials occurring at intervals of 10 seconds or 2 minutes with the muscle at rest. There is no separate discussion of electroencephalography.

A much needed chapter on psychologic diagnosis has been included. It would be well if all of us would read this chapter several times for it introduces us to the uncommonly used methods by which psychology can be of definitive aid to us.

In the discussion of syringomyelia there is a persistent clinging to the probability "that the disease is due to a congenital neural defect." I would have preferred to read Dr. Wechsler's discussion that the adult counterpart of myelomeningocele is syringomyelia as put forth recently by Gardner. Operation in the suboccipital area is not mentioned. We should direct our attention to the posterior fossa for explanation of syringomyelia.

Under the treatment of parkinsonism he has not given adequate space to the discussion of present-day medical or surgical treatment. He still is pessimistic about the surgical treatment of tremors, although there have been considerable advances in the past 5 years with injection of alcohol and electrocoagulation of the globus pallidus. Recent ultrasonic destruction of the ansi lenticularis has provided us with encouraging results.

In deference to the ever-increasing aging population, it is a loss not to have profited by Dr. Wechsler's experiences in the treatment of myelopathies secondary to spinal disease, particularly cervical spondylosis. More attention could have been given to the physiology of cerebral vascular insufficiencies due to reduced blood flow. These two situations are an ever-increasing problem to the field of neurology.

Almost 50 pages have been devoted to a discussion of the neuroses.

Some day someone should attempt a neurophysiologic classification of organic neurology.

Arthur A. Morris, M.D.

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PSYCHIATRIC CONSULTATION IN A RESEARCH SETTING

ROBERT N. BUTLER, M.D.
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INFORMATION concerning psychiatric consultation in a variety of medical settings is available.[1, 2, 3] Psychiatric referral in a total research setting (such as the Clinical Center, the research hospital of the National Institutes of Health) has not been studied. The number of psychiatric referrals, the nature of the diagnostic findings, the manifest reasons prompting psychiatric referral, and the extent to which experimental procedures and drugs precipitated consultation were the particular objectives of this investigation.

Retrospective review of all requests for psychiatric consultations during the first 26 months of the Clinical Center's operation (July 14, 1953 to September 15, 1955) was undertaken. These consultations were conducted by staff members of the National Institute of Mental Health upon the request of physicians of the other 6 Institutes. There were 144 separate requests for psychiatric evaluation of 138 of the 3,022 patients admitted during this period. However, this report is principally derived from analysis of 116 completed consultations, since data pertinent to several categories of the analysis were lacking in the remainder. The accompanying tables indicate the number of patients upon which each tabulation was based. In all patients for whom drugs or procedures were suspected to have a significant role, the complete medical record was reëvaluated by the authors.

Table 1 identifies the patient sample under study with respect to sex and age distribution. The differing number of requests among the Institutes reflects variations in the number of beds per Institute, the nature of diseases under study (e.g., infectious diseases), and the like. Representativeness cannot be claimed for this population, which is medically selected on the basis of research interests (e.g., type and stage of disease), and which is self-selected in that consent to be a research patient is required.

Consultations were requested for 3 of the 56 "normal control" patients who volunteered for research projects at the Clinical Center during this period.

TABLE 1

Psychiatric Consultations, National Institutes of Health

July 14, 1953 to September 15, 1955

Consultation Requests		Total Admissions
Institute	Number	
Cancer	38	711
Heart	38	788
Neurological diseases and blindness	34	648
Arthritis and metabolic diseases	24	356
Microbiology	6	519
Dental research (OPD)	4	
Total	144*	3,022†

Age and Sex of Referred Patients

	Number	Age Range	Average Age
Women	77	19–76	40.6
Men	52	17–75	35.8
Children	9	3½–14	7.3
Total	138		

* Includes 3 referrals of "normal control volunteers."

† Includes 56 admissions of "normal control volunteers."

Psychiatric Disorders. Four and one-half per cent of the total population were referred for psychiatric consultation. Of the 138 patients referred, 85 (61 per cent) were found to have psychiatric disorders.

In table 2 the major psychiatric categories are tabulated. In this series psychoneuroses constituted the largest diagnostic class, followed by personality disorders, functional psychoses and organic brain disorders. The most common single diagnosis in this series was depressive reaction (18 patients), but the presence of varying degrees of depression was described in 40 patients. Sixteen patients in the total sample were referred as suicidal risks, and this opinion was corroborated by psychiatric evaluation in 9 patients.

TABLE 2

Prevalence of Psychiatric Disorders in 116 Referrals

		Procedure or Drug Implicated
Psychoneuroses (including 18 depressive reactions)	33	1
Personality disorders	20	0
Functional psychoses	15	7
Organic brain disorders (including 6 acute brain syndromes)	14	4
Psychophysiologic disorder	1	0
Differential psychiatric diagnoses stated	6	
Total*	89†	12

* There were no diagnoses in 31 patients.

† Includes 4 patients with multiple diagnoses.

Reasons for Referral. Stated reasons for referral could be formulated in 11 categories. (Unconscious determinants which are often significant in the referral process will not be considered here.) Table 3 lists, in decreasing frequency, the reasons for referral contained within these categories. Psychiatric symptoms (especially depression), management problems, and suspected drug- or procedure-induced changes were the 3 major reasons for referral.

TABLE 3

Reasons for Psychiatric Referral

		Number	Percentage
1. Psychiatric symptoms		50	30
Depressed mood	21		
2. Management problems		27	17
Behavioral	11		
"Pain problem"	4		
"Functional component" in disability	12		
3. Drugs and procedures		21	14
4. Suicidal intention		16	10
5. No organic explanation for symptoms		15	8
6. Disposition (e.g., evaluation for commitment)		10	6
7. Prediction response to contemplated drugs and procedures		9	6
8. Unspecified		4	3
9. Psychosomatic disease		3	2
10. Past psychiatric history		2	1
11. Patient request (normal control volunteer)		1	1

Consultations Prompted by Drugs and Procedures. There were 21 referrals in which the physician asked if a drug or procedure was responsible for the patient's disturbance. This accounted for 14 per cent of the reasons for referral. The psychiatric consultants answered affirmatively in 13 of the 21 cases. Their judgments were based upon psychiatric factors (e.g., could psychiatric factors account for the disorder), in addition to consideration of drug variables (e.g., temporal sequence, withdrawal effect, and the like).

In 1 case a procedure was considered to be an important contributing factor. This patient developed a depression following a standard operation.

Drugs were considered to be major contributing factors in the development of psychopathologic reactions in the remaining 12 patients. In 11 of these patients, brain damage, a history of psychiatric disorder, or both, were present. Considering the total sample, drugs were thought to be contributory in 10 per cent of the 116 referrals and 14 per cent of the 85 patients with diagnosable psychiatric disorders. Table 4 identifies these drugs.

TABLE 4

Drugs Implicated by the Psychiatrist in 12 Patient Referrals

1. Steroids (8 cases)	
Cortisone	4
Prednisone (formerly Metacortandracin)	3
Hydrocortisone	1
2. Barbiturates (3 cases) (complicated by concurrent other drugs)	3
3. Amphenone-B	1

During the period of study, the drug, prednisone, was being investigated as a therapeutic agent for rheumatoid arthritis. It has since become widely used and its untoward mental effects described.[4]

In 1 patient, psychologic changes were attributed to amphenone-B, an agent whose endocrinologic effects were being investigated at that time.[5] A psychiatric diagnosis was not made in this patient, but altered bodily sensations, suggestive of depersonalization, were attributed to the agent by the psychiatric consultant. Other instances of adverse mental effects have not occurred during subsequent use of this drug at the National Institutes of Health.[6]

The clinical pictures of psychiatric disorders which were associated with the drugs did not differ from those observed in the absence of drugs. However, certain disorders appeared to be prominently associated with drugs. They were considered to be contributory in the development of 4 of the 6 acute brain syndromes, all 4 of the paranoid states, and the single psychotic-depressive reaction. The remaining 2 psychiatric disorders attributed to drugs were a manic-depressive psychosis, manic phase, and a neurotic-depressive reaction. Four of the 11 patients with disorders related to drugs were appraised as suicidal risks; thus drugs were considered major contributing factors in 4 of the 9 suicidal risks evaluated in the total sample.

DISCUSSION

Estimates of the prevalence of psychopathologic conditions which have been reported in other hospital settings are considerably higher than the 2.8 per cent prevalence reported here.[1, 2, 3] We do not believe that this figure is a reliable measure of such disorders among the patients in the National Institutes of Health. For example, psychiatric evaluation usually preceded admission to the National Institutes of Health in those cases in which there were reservations about the medical diagnosis. Instead, it is our impression that the 2.8 per cent figure more likely reflects those psychiatric states which complicate medical research in this hospital.*

The extent to which the research process itself (drugs and procedures) was responsible for supervening psychiatric disorders is difficult to assess. As evaluated by the study of referrals, drugs and procedures were infrequently associated with adverse mental effects in this hospital (12 of 3,022 patients, or less than 1 per cent). However, it should be emphasized that drugs were considered major contributing factors in 14 per cent of the 85 patients with diagnosable psychiatric disorders.

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* This figure does not indicate only emerging psychiatric disorders, however, but includes preëxistent disorders as well. Although it was not possible to make this separation in a retrospective study, both classes constitute complications in research programming.

In order to circumvent such complications, various investigators have designed studies to uncover important predisposing factors, including personality variables.[7] Study of the experimental subject, including the "normal control" volunteer,[8, 9] may provide screening technics to assess psychiatric unsuitability for experimental studies. At present, however, there are no established principles or generally applicable predictive indicators. For that reason, investigators must depend upon individual evaluation of their patient. Whenever a history of psychiatric difficulties is elicited, or the current status of the patient suggests psychiatric problems, psychiatric referral is indicated.

Summary and Conclusions

Psychiatric consultations were requested on 138 of 3,022 patients admitted during the first 26 months of operation of the Clinical Center. The 2.8 per cent prevalence of diagnosable psychopathologic conditions is interpreted as a measure of the extent to which psychiatric complications occur in a medical research program. Eighty-nine psychiatric diagnoses were made in 85 of 116 patients. Psychoneuroses (especially depressive reactions) composed the largest diagnostic category, followed by personality disorders, functional psychoses, and organic brain disorders. Psychiatric symptoms (especially depression), management problems, and suspected drug- or procedure-induced changes were the 3 major reasons for referral. When referral occurred, drugs were found to be major contributing factors in 14 per cent of the 85 patients with diagnosable psychiatric disorders. Considering the extent to which drugs and procedures were utilized in this research hospital, they were infrequently associated with adverse mental effects.

BIBLIOGRAPHY

1. Hospital Patient Survey. New York: The New York Foundation, 1956.
2. Hope, J. M.: Incidence of psychiatric syndromes in a diagnostic hospital, in Principles of Internal Medicine, 2nd ed., edited by Harrison, T. R., and others: New York: Blakiston, 1954, **1**, 228.
3. Titchener, J. L., and others: Psychosis in surgical patients. Surg. Gynec. & Obst., 1956, **102**, 59.
4. Bollet, A. J., Black, R., and Bunim, J. J.: Major undesirable side-effects resulting from prednisolone and prednisone. J.A.M.A., 1955, **158**, 459.
5. Hertz, R., Pittman, J. A., and Graff, M. M.: Amphenone: toxicity and effects on adrenal and thyroid function in man. J. Clin. Endocrinol., 1956, **16**, 705.
6. Hertz, R.: Personal communication.
7. Rome, H. P.: Symposium on certain problems arising from clinical use of cortisone; certain psychodynamic aspects of role of cortisone and allied substances in production of psychologic responses. Proc. Staff Meet. Mayo Clin., 1953, **28**, 649.
8. Pollin, W., and Perlin, S.: Psychiatric evaluation of normal control volunteers. Am. J. Psychiat., 1958, **115**, 129.
9. Perlin, S., Pollin, W., and Butler, R. N.: Experimental subject: observations on two volunteer populations. A.M.A. Arch. Neurol. & Psychiat., 1958, **80**, 65.

CLINICAL EVALUATION OF A NEW DRUG (1-PHENYL-2-AMINOPROPANE ALGINATE) FOR THE TREATMENT OF OBESE PATIENTS IN GENERAL PRACTICE

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THERE ARE approximately 30 million obese patients in this country, yet this "disease" (obesity) is most regretfully neglected by both patient and physician. Approximately 80 per cent of obese patients who visit physicians for some reason or another are seen by the general physician first.

The treatment of obese patients is not of short duration but for most of these people a life-long project with exacerbations and remissions, with spells of overeating, overdrinking, and overweight. Treatment consists basically of routine but complete examinations, diet régime, correction of any (there are but few) metabolic defects, psychosomatic care, and the prescribing of appetite depressants in many instances to carry the patient over the first "rough" days on his diet.

Since the initial investigation on amphetamine by Piness[1] and Myerson,[2] the search for the perfect anorexigenic agent has continued. It was thought that the stimulating or "lift" effect of these drugs was an aid in the process of dieting, but in the past 10 years I have found that many of my obese patients complained that many of these drugs produced nervousness, wakefulness, gastrointestinal disturbances and frequently psychic stimulation. Because of the latter complaint, some type of barbiturate to calm the patient has been added to, or given in conjunction with many of the anorexigenic agents. I, like many physicians, have been most unhappy to add barbiturates to the diet of obese patients.

During the past year I have been investigating the anorexigenic effects of a new drug, 1-phenyl-2-aminopropane alginate.*

Investigation by others has shown that this new agent will delay the feeding reflex in animals with negligible stimulation of the psychic cerebral centers.[3] Acute oral toxicity studies were done on mice under controlled environmental conditions of temperature and relative humidity for comparison studies. It was noted that 1-phenyl-2-aminopropane alginate is one-fifth as toxic as d-amphetamine sulfate, on the basis of weight of the respective salts.

Determinations of the anorexic effect of 1-phenyl-2-aminopropane alginate and other anorexic drugs were done in dogs.[4] Twenty individually caged dogs were observed for their normal feeding habits for 4 days with all of the animals receiving the same amount of food (0.6 Kg.) which they consumed 5 minutes after being placed in their cages.

Four drugs were used in the double-blind cross-over tests in these animals. These were given at dosage of 5 mg. per Kg. and were the following: 1-amphetamine sulfate, d-amphetamine sulfate, phenylpropanolamine, and 1-phenyl-2-aminopropane alginate. The lack of hyperexcitability and a diminished food craving lasting 3 hours resulting from the use of 1-phenyl-2-aminopropane alginate clearly showed the distinct advantage of this drug. Findings and results in another study with limited controls recently concluded by Gadek and co-workers[5] on

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* The 1-phenyl-2-aminopropane alginate (Levonor) used in this study was supplied by Nordmark Pharmaceutical Laboratories, Irvington, New Jersey.

80 patients coincide fairly conclusively with the results in my study.

Patients and Procedure

Patients were selected at random as they came to the office for treatment of their obesity. Some had previously had medication and diet, while others were dieting under a doctor's supervision for the first time. After complete physical examinations including basal metabolic rate, blood counts and urinalysis, the patients were thoroughly questioned as to their particular reasons for wanting to lose weight. Problems concerning their work, home life, and environment were discussed. Many bizarre reasons for their overeating were mentioned by some of these patients. Others were just obese due to simple food excesses without any particular reasons except love of eating.

Other members of the patient's family were seen by me and the problems of weight reduction discussed with them for the patient's benefit. Coöperation of parents or husband and wife is most important for successful long-term treatment for excellent and lasting results.

All questioning, discussion of diet, and recommendations followed a uniform pattern so that the power of suggestion from physician to patient would be similar for all patients in this study. Those patients with a blood picture of hypochromic anemia were placed on supplemental iron and others were given supplemental iron with vitamins. The selection of these medicaments must be such that they do not in turn stimulate the patient's appetite.

All patients were given a printed sheet containing meal suggestions for the entire week, and this 1,000-calorie diet followed as closely as possible what I consider should be the "All-American" reducing diet.* Meals could be interchanged for variety, and substitutes with equivalent calorie content were allowed.

All obese patients under treatment were requested to return in 2 weeks after beginning treatment, and this request was emphasized by giving specific appointments. Thereafter they returned every 2 weeks until a satisfactory weight reduction level was reached. At this stage they returned every 3 to 4 weeks, always by definite appointment.

These patients need our careful guidance, our praise or gentle yet firm reproof as the case may be, depending upon the amount of weight loss or the amount of "diet cheating" they have done.

To keep obese patients on the straight and narrow path of dieting, a good bathroom scale used to check their weight at home each morning before breakfast will ring the bell of diet caution throughout the day.

I was supplied with identical tablets all numerically code-labeled by the manufacturer. This supply of coded tablets was comprised of the new drug, 1-phenyl-2-aminopropane alginate, and placebo. The governing code was known only to the manufacturer. As the obese patients came to the office for treatment (after complete physical examination and laboratory work-up) they were each given a bottle of the tablets which were picked at random from the shelf, and the numbers on the bottle were noted and marked on the patient's record, so that each patient received the same coded number when more medication was needed. The 1,000-calorie diet printed sheet was discussed and then given to them to follow during the test program.

Instructions on the label of each bottle were identical, 1 tablet to be taken one-half to three-quarters of an hour before each meal, and 1 ablet again about 30 minutes prior to evening television viewing for those patients who were in the habit of "nibbling" food or drinking beverages at that time. Sedation was not used in any of these patients. At each visit the weight, blood pressure and pulse were recorded and routine questioning for subjective complaints was done. Evidence of any toxic effects was sought by general examination and occasional blood and urine examination throughout the study.

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* The author will send a copy of this diet on request.

At the conclusion of this study the code numerals were sent to me by the manufacturer. My records showed that there were 25 patients on the drug, 1-phenyl-2-aminopropane alginate, and 24 patients on placebo. A further study was done on 24 patients without placebo control who were placed on the diet and the 1-phenyl-2-aminopropane alginate to compare the difference in weight loss and other factors in a noncontrol group. Following this, 4 patients who were on the placebo were then purposely placed on the drug for almost an equivalent number of weeks to see the results. These patients did not know that they were transferred from placebo to drug.

RESULTS

Reappraisal of these patients for any toxic symptoms, allergic manifestations, or psychic stimulation including interference with sleep showed minor disturbances in 2 patients on the 1-phenyl-2-aminopropane alginate consisting of dryness of the mouth and in 3 patients on placebo consisting of nervousness and dry mouth in one, "nervous" stomach and cramps in the abdomen in another, and nervousness and wakefulness in the third.

It was definitely apparent that all patients on the drug lost weight, improved in their general well-being, and were better able to follow the diet with the aid of the drug than those patients on the placebo. Weight loss with the 1-phenyl-2-aminopropane alginate was accomplished easily, particularly in the first 1 or 2 weeks when this is most important in these patients, since it bolsters their morale and aids in helping to keep them on their diet. This initial weight reduction success stimulates the obese patient to return for regular check-ups and makes his so-called food sacrifices worthy of his efforts.

The average weight loss for 25 patients in the series (double blind) receiving 1-phenyl-2-aminopropane alginate was 20.7 lbs. (9.4 Kg.), and the average weekly weight loss of this group was 2.4 lbs. (1.1 Kg.). With the placebo in the double blind system, 18 patients lost weight and 6 patients gained, so that an average weight loss for all patients in this group was 1.9 lbs. (0.86 Kg.), while the average weekly weight loss in the placebo control group was 0.29 lb. (0.13 Kg.).

The total number of weeks on the drug was 216 in contrast to the total number of weeks, 158, on the placebo. This was caused in many cases by the patient's inability to continue on diet alone in the first few weeks.

SUMMARIES OF REPRESENTATIVE CASES

Case 1. A 33-year-old white female housewife stated that she "had been fat" all her life (since childhood) and was never able to lose any appreciable amount of weight. She complained of some shortness of breath and some difficulty in doing her usual housework. She gave the usual history of the use of all types of fad diets and various compounds, but she had never had a true diet education. Examination revealed an obese female, 63 inches (160 cm.) tall and weighing 195.5 lbs. (88.0 Kg.). The blood pressure was 166/74 mm. Hg, and the pulse rate 88 per minute; urinalysis, blood counts and BMR (minus 10 per cent) were normal. Physical examination revealed a moderate scoliosis and a shortening of the right lower extremity (1½ inches) compared to the left. The patient complained of pain in the pelvis, back and hips. She was placed on the diet and the unknown coded tablet.

Following a weight loss of over 24.5 lbs. (table 1) many of her previous complaints such as backache and pains in the hips diminished. She was able to do her housework without difficulty. A heel lift was prescribed for the shortened extremity. Examination of the code revealed that this patient was taking 1-phenyl-2-aminopropane alginate.

TABLE 1

Record of Patient's Weight, Blood Pressure and Pulse Rate over Period of 9½ Weeks (Case 1)

Date	Wt. in Lbs.	B.P. mm. Hg	Pulse Rate Min.
10/8/56	195.5	166/74	88
10/25/56	187	130/80	80
11/8/56	184	118/80	78
11/27/56	179	130/80	74
12/14/56	171	132/80	70

Case 2. A 40-year-old white male office worker stated that he had used various preparations previously with

and without diet restriction but had to discontinue these due to increased nervousness, "jitteriness," and excessive dreaming and wakefulness at night. He complained of occasional dizzy spells, some shortness of breath, precordial pain and craving for sweets. There had been a weight gain of over 25 pounds in the past year and a half. Physical examination revealed an obese white man, 73 inches (185.4 cm.) tall and weighing 246.75 lbs. (110.7 Kg.). The blood pressure was 140/78 mm. Hg, the pulse rate 74 per minute, the BMR minus 7 per cent, the fasting blood sugar 68 mg. per 100 ml., and the postprandial blood sugar 105 mg. Urinalysis and blood counts were normal. The patient was placed on the diet and unknown coded tablets.

Electrocardiogram and chest X-ray film were negative. The blood cholesterol was 185 mg. per 100 ml. of blood.

After initial education in proper dieting and helping the patient over the first few rough weeks, he was able to discontinue medication and adhere to the diet with very little difficulty. He lost 25.5 lbs. (table 2). All of the previously described symptoms were absent at the end of 6 weeks. Examination of the code revealed that this patient had been taking 1-phenyl-2-aminopropane alginate.

TABLE 2

Record of Patient's Weight, Blood Pressure and Pulse Rate over Period of 6 Weeks (Case 2)

Date	Wt. in Lbs.	B.P. mm. Hg	Pulse Rate Min.
11/2/57	246.75	140/78	84
11/23/57	230	120/78	78
12/14/57	221.25	118/74	74

Case 3. A 44-year-old saleslady with a history of overeating, nervousness, and difficulty in controlling her appetite had been overweight for 12 years and had attempted various diets and medications with very poor results. Some shortness of breath and many bouts of gastric distress had occurred. She had to discontinue various appetite-depressing drugs due to increased nervousness and difficulty in sleeping.

Physical examination revealed an obese, white woman 63 inches (160 cm.) tall and weighing 180 lbs. (81.0 Kg.). The blood pressure was 165/92 mm. Hg, and the pulse rate 80 per minute. Urinalysis and blood counts were normal; the BMR was plus 6 per cent. X-ray examination of the gall-bladder showed definite shadows of calculi and that it emptied poorly (less than 30 per cent) after a fatty meal. The patient was placed on the diet and unknown coded tablets. The result is shown in table 3.

After 20 weeks this patient was well educated to her diet, was able to discontinue her medication, and did not regain any of her weight. Examination of the code revealed that this patient had been taking 1-phenyl-2-aminopropane alginate.

TABLE 3

Record of Patient's Weight, Blood Pressure and Pulse Rate over Period of 20 Weeks (Case 3)

Date	Wt. in Lbs.	B.P. mm. Hg	Pulse Rate Min.
7/5/57	180	165/92	86
7/11/57	177	122/70	80
7/18/57	173	125/73	78
8/1/57	165.5	120/75	78
8/15/57	161.5	120/70	74
8/29/57	155.25	122/74	75
9/13/57	153	130/75	76
10/14/57	146.5	110/70	70
11/1/57	141.25	120/75	72
11/22/57	138	124/76	74

Case 4. A 55-year-old married woman office worker stated that she had tried diets previously but unsuccessfully. She had never had medication prescribed to curb her appetite. Her obesity dated back 15 years following a surgical menopause. Whenever she dieted she would have headaches, abdominal cramps and dizzy spells. Examination revealed an obese white woman 64 inches (163 cm.) tall and weighing 180 lbs. (81.0 Kg.). The blood pressure was 122/74 mm. Hg, and the pulse rate 82. Urinalysis, blood counts, electrocardiogram, and chest X-ray film were normal. The blood cholesterol was 190 mg. per 100 ml. The patient was placed on the diet and the unknown coded tablets. The result is shown in table 4.

TABLE 4

Record of Patient's Weight, Blood Pressure and Pulse Rate over Period of 7 Weeks (Case 4)

Date	Wt. in Lbs.	B.P. mm. Hg	Pulse Rate Min.
5/6/57	180	122/74	82
5/20/57	178	126/76	78
6/3/57	176	124/76	76
6/17/57	172	122/74	72
6/24/57	171	125/78	80

At the end of 7 weeks the patient complained of nervousness and stomach cramps and severe food craving. Examination of the code revealed that the patient had been taking placebo medication.

This patient refused to continue her diet and had to increase her food intake due to food craving. Since finishing this study she has been placed on 1-phenyl-2-aminopropane alginate with excellent results in curbing her appetite. There have not been any bouts of stomach cramps or nervousness, and her weight has dropped to 150.5 lbs. in 6 weeks.

ANALYSIS OF DOUBLE-BLIND

At the conclusion of the double-blind series and with knowledge of the coded tablets, I decided to determine the difference in weight loss in an additional group of 24 patients. These patients had not been included in the double-blind series but were placed upon the 1-phenyl-2-aminopropane alginate and diet under the same conditions as the double-blind group. I found that the average number of pounds lost per patient was 14.4 lbs. (6.3 Kg.), which was relatively close to the 20.7 lbs. (9.4 Kg.) per patient for those receiving the active drug in the double-blind group.

In another series 4 patients were placed on the now known placebo and diet, and after a variable number of weeks they were then placed on the drug without the patients' knowledge of this change. In both these latter studies the changes in pulse rate, blood pressure, and laboratory findings were negligible.

Case 5. An excellent example in this series was a 43-year-old married white woman who was given the known placebo and placed on the 1,000-calorie diet. She had tried dieting on many occasions, with and without medication. Her greatest problem was to control her appetite and to become accustomed to a restricted diet. She was extremely nervous and had to eat between meals and at or near her bedtime to help "calm" her nerves.

Physical examination revealed an overweight woman of 133.25 lbs. (60.0 Kg.) and 60 inches (152 cm.) tall. The blood pressure was 125/75 mm. Hg, and the pulse rate 76 per minute. All laboratory reports were normal.

On placebo medication and diet this patient lost 2.5 lbs. in 3 weeks, but at the end of this time her nervousness increased and she stated that she would have to go back to in-between food intake or "I will lose my mind." She was then given another supply of identical tablets, but these were the 1-phenyl-2-aminopropane alginate, and she was asked to try to remain on her diet for 2 or 3 more days. In 48 hours she was able to control her appetite and craving for food and in 3 weeks her weight dropped from 134.25 lbs. to 122 lbs., a loss of 12.25 lbs. (5.5 Kg.). Her blood pressure was 120/76 mm. Hg, and the pulse rate 78 per minute. There were no changes in the blood, urine or BMR. The control of appetite seemed to control her nervousness, and I was able to educate this patient to follow a proper diet and keep her weight down. There were no side-effects.

COMMENT

The results of this study of the usual types of obese patients seen in every-day general practice certainly show that many of our patients do need some aid for appetite control by the use of appetite depressant drugs when they are placed on low calorie diets. The cases cited are not extraordinary in nature but the usual obese problem patients seen by all of us in practice.

The ideal drug would seem to be one which does not increase the blood pressure or pulse rate, does not create any untoward gastrointestinal disturbance, can be taken for short or long periods of time as necessary to carry the obese patients over the first few "rough" days or weeks on their restricted diet, and finally which does not produce nervousness or psychic stimulation even when taken in the evening at the television-viewing time.

It is interesting and gratifying to note that those patients with hypertension, either systolic, diastolic, or both, were aided considerably when placed upon a proper diet with resultant weight loss. This drug, 1-phenyl-2-aminopropane alginate, did not create any adverse effects or symptoms nor did it increase the blood pressure or pulse rate in any of these patients.

The comparative results of this clinical study are given in table 5.

The average weekly weight loss for females in the control group receiving the active drug is 9 times that of the placebo group, while the average weekly weight loss for females in the noncontrol group is 10 times that for the placebo group. The average weekly weight loss per patient on the active drug is 2.8 lbs., and the corresponding average for the patients unknowingly receiving the placebo is 0.65 lb.

TABLE 5

Summary of Findings in the Control and Noncontrol Phases of the Study

	Control Group			Noncontrol Group	
	1-phenyl-2-aminopropane alginate		Placebo	1-phenyl-2-aminopropane alginate	
No. of Patients............	25		24	24	
	Male (4)	Female (21)	Female (24)	Male (3)	Female (21)
Avg. age in years	39	37	38	45	32
Total no. wks. on diet	26	190	158	17	100
Total wt. loss (lbs.)	84.0	434.75	46.6	42.0	303.3
Avg. wt. loss (lbs.)	21.0	20.7	1.9	14.0	14.4
Avg. wt. loss per patient per wk. (lbs.)	3.2 2.75 (avg.)	2.3	0.29	2.5	3.0

SUMMARY

Clinical investigation of a new anorexigenic agent, 1-phenyl-2-aminopropane alginate, was conducted in a daily practice with the usual types of obese patients seen by most general physicians. The double-blind technic was employed with tablets code-numbered by the manufacturer and the tablet content unknown to me. At the conclusion of the study I was given the list of code numbers which designated the placebo tablets and those containing the 1-phenyl-2-aminopropane alginate. It was noted that 25 patients had been receiving the anorexiant and 24 patients had been taking the placebo.

A subsequent study of 24 patients without placebo control was done primarily to compare the results with those of the double-blind series. A further study of 4 patients on placebo who were unknowingly transferred to the 1-phenyl-2-aminopropane alginate showed some interesting results.

Patients who received the anorexigenic drug in the control study lost an average of 20.7 lbs. (9.4 Kg.) each, at a rate of 2.4 lbs. (1.1 Kg.) per week, while those patients in the noncontrol group taking the drug lost an average of 13.8 lbs. (6.2 Kg.) each, at the rate of 2.9 lbs. (.17 Kg.) per week.

Three of the 4 patients who were on the placebo and transferred to the appetite depressant drug lost an average of 3.25 lbs. (1.5 Kg.) each at a rate of 0.65 lb. per week (.29 Kg.) while on placebo, but lost an average of 18.3 lbs. (8.2 Kg.) each at a rate of 3.2 lbs. (1.0 Kg.) per week after being given the 1-phenyl-2-aminopropane alginate. One patient in this group gained 6.5 lbs. (2.9 Kg.) at a rate of 1.3 lbs. (0.6 Kg.) per week on the placebo, but lost 3.8 lbs. (1.7 Kg.) per week on the drug.

Diet education of the patients with the aid of a well-balanced 1,000-calorie diet was the greatest single factor in attaining the successful results of this study.

Side-reactions to this drug were negligible. Laboratory studies including blood counts, urinalysis, BMR, blood pressure, and pulse rate showed no evidence of toxic reaction. Sleep was not interfered with when the anorexiant was taken during the evening to prevent eating while watching television. Subjective complaints of dryness of the mouth were minimal and easily overcome with increased water intake.

This drug, 1-phenyl-2-aminopropane alginate, was found to be an effective and safe anorexigenic agent for routine use in treating obese patients in everyday general practice.

BIBLIOGRAPHY

1. Piness, G., Miller, H., and Alles, G. A.: Clinical observations on phenylaminoethanol sulphate. J.A.M.A., 1930, **94**, 790.
2. Myerson, A., Loman, J., and Dameshek, W.: Physiologic effects of benzedrine and its relationship to other drugs affecting autonomic nervous system. Am. J. M. Sc., 1936, **192**, 560.
3. Scientific Exhibit presented at the Sesquicentennial Convention of the Medical Society of the State of New York in New York City, February 18–21, 1957.
4. Mangieri, C.: Unpublished data.
5. Gadek, R. J., Feldman, H. S., and Lucariello, R. J.: Study of 1-phenyl-2-aminopropane alginate (Levonor), new anorectic. J.A.M.A., 1958, **167**, 433.

FEMORAL NEUROPATHY IN ABDOMINOPELVIC SURGERY

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INTRA-ABDOMINAL and intrapelvic surgical procedures are occasionally complicated by the appearance of weakness in one or both lower extremities postoperatively. The diagnostic considerations are complex unless such disability can be related exclusively to the functions of the femoral nerve. The most common cause of femoral neuropathy is involvement of the femoral nerve in the course of abdominopelvic surgery. The syndrome is easily recognized. Prompt recognition and appropriate neurologic management will eliminate or minimize the possibility of residual neurologic disability. The case reported is a typical example of femoral neuropathy complicating gynecologic surgery.

Report of Case

The patient was admitted to the Columbia Hospital for Women on November 2, 1957 with the complaint of vaginal bleeding of 3 months' duration. She was uniparous and 40 years old. The past history was not contributory. An irregularly enlarged, firm uterus was the principal finding on physical examination. A total hysterectomy and bilateral salpingo-oöphorectomy and appendectomy were performed. The surgery was performed through a Pfannenstiel incision. The uterus was enlarged to the size of a 3 months' pregnancy, and the tubes were clubbed and bound down by adhesions bilaterally. The operative procedure was accomplished without incident.

The immediate postoperative course was uneventful. On the third postoperative day, when the patient attempted to stand out of bed her right leg did not support her adequately and she fell. She attempted to stand again and fell a second time. The patient remained in bed for a 4-day period and then attempted to stand and walk again. It was apparent that there was great weakness in the right lower extremity, particularly at the knee. She did not complain of pain in the extremity or of any other weakness or disability.

The patient continued to complain of weakness in the right lower extremity. It was necessary for her to walk with the support of a cane. Examination 6 weeks after surgery revealed marked weakness in the right lower extremity, with inability to extend the leg at the knee and inability to flex the thigh on the abdomen. The patellar reflex was absent on the right; the Achilles reflex was normal. There was a marked deficiency of muscle tone over the anterior aspect of the right thigh, and measurements of the thigh revealed approximately 2 inches of atrophy in the right thigh as compared to the left. A sensory deficit was detected over the anterior aspect of the right thigh.

A diagnosis of traumatic femoral neuropathy was made and conservative observation recommended. The patient was reëxamined 3 weeks later, when a very slight contraction in the right quadriceps muscle was palpable. One month later there was definite contraction of both the quadriceps and the iliopsoas muscles, though weakness was still severe and ambulation required support by a cane. Improvement has continued slowly but progressively.

Discussion

The femoral nerve is derived from the second, third and fourth lumbar roots. It arises in the substance of the psoas muscle and emerges at the lateral border of this muscle, to pass downward in the groove between the psoas and the iliacus muscles to enter the thigh beneath the inguinal ligament, lateral to the femoral artery. The muscular branches of the femoral nerve supply the iliopsoas, pectineus, sartorius, quadriceps femoris, and sometimes the adductor longus muscles. The sensory branches of the femoral nerve supply the anteromedial surface of the thigh to the knee, and the medial aspect of the leg, below the knee, to the dorsum of the foot. Figure 1 illustrates the location of the segment of the femoral nerve that is particularly vulnerable in pelvic surgical procedures.

Femoral neuropathy is most likely to occur in gynecologic surgery. Winkelman[1] reported 6 cases, each complicating hysterectomy. It has been noted after surgery for ovarian cysts and for extra-uterine pregnancy.[2] The femoral nerve involvement may be unilateral or bilateral, depending to a degree on the nature of the surgical procedure. It occurs following abdominal surgery of a nongynecologic nature, though less frequently. Cases have been reported of involvement of the femoral nerve in the course of appendectomy, herniorrhaphy, and bowel resection.[3]

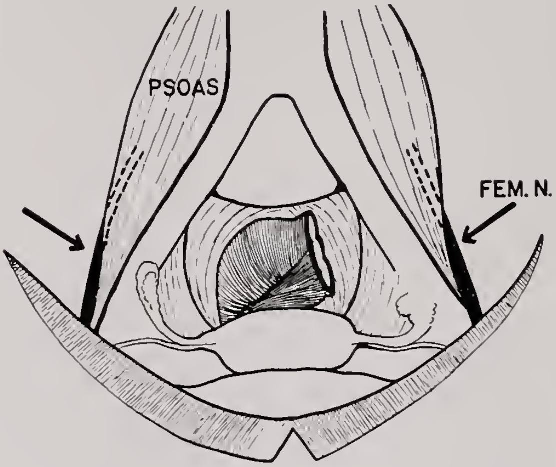

Fig. 1. Location of portion of femoral nerve vulnerable in pelvic surgery.

It is probable that some cases of femoral neuropathy are not recognized. Often the complaint is one of vague weakness in one or both lower extremities which, fortunately, improves spontaneously in most instances in from 1 to 24 weeks. Symptoms vary according to the degree of involvement of the nerve. Weakness of flexion of the thigh at the hip and weakness of extension of the leg at the knee, with loss of the patellar reflex, are the prominent clinical features of femoral nerve involvement. There may be inability to support the weight of the body on the leg. If involvement is bilateral and severe the patient may be unable to walk, and even standing may be very difficult. It is common for the patient to fall when first attempting to stand out of bed after surgery.

When femoral involvement is less severe the patient notes difficulty in climbing stairs and in walking uphill. Walking backward is easier than walking forward. Accessory muscles permit the limb to be used as a rigid support, but the femoral weakness causes prompt collapse if the leg is flexed slightly. Patients will fall into their chairs on attempts to sit, particularly if the weakness is bilateral and the iliopsoas muscle is involved. When iliopsoas weakness is present, the lesion must necessarily be within the pelvis, since the innervation of this muscle is given off high in the course of the femoral nerve.

Retraction associated with surgery is the usual etiology of this neuropathy. Spontaneous recovery usually occurs within 3 to 6 months. Although spontaneous recovery is the rule, recovery is not always spontaneous, nor is it always complete. It is essential, therefore, that involvement of the femoral nerve be recognized promptly when it occurs in order to assure appropriate observation for evidence of improvement or to select the optimum time for intervention and surgical repair of the nerve in the occasional instance when this will be required. Surgical intervention to explore and repair the nerve should be undertaken if some degree of recovery cannot be demonstrated clearly after an interval of 3 months of expectant observation.

Summary

The most common cause of femoral neuropathy is involvement of the nerve in the course of abdominopelvic surgery. Retraction maneuvers compromise the nerve within the pelvis. Awareness of the possibility of this complication may result in its prevention and will lead to its prompt recognition and appropriate treatment. Spontaneous recovery usually occurs. An illustrative case has been reported following pelvic surgery, with gradual, spontaneous recovery.

(*Continued on page 562*)

CHRONIC COR PULMONALE*

PART III

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MAJOR FORMS of chronic pulmonary disease which may lead to cor pulmonale that were considered in Parts I and II are:

- Emphysema (asthma, bronchitis, bronchiectasis)
- Pulmonary fibrosis
  - Hamman-Rich syndrome
  - Radiation fibrosis
  - Pneumoconiosis—silicosis, etc.
- Alveolar-capillary block
  - Rheumatic pneumonitis
  - Sarcoidosis
  - Scleroderma
  - Dermatomyositis
  - Tuberculosis
  - Berylliosis

Also discussed in Part II were:

- Chronic massive pulmonary artery thrombosis
- Recurrent pulmonary emboli
- Pulmonary arteriosclerosis
- Vascular anomalies
- Sickle cell anemia
- Kyphoscoliosis

PRIMARY PULMONARY HYPERTENSION

Pulmonary hypertension has been the subject of considerable investigation since the introduction of cardiac catheterization. There is an extensive and expanding literature on various facets of this interesting abnormality. It is now generally appreciated that pulmonary hypertension may be a concomitant or the result of a wide variety of disorders (see table 1 presented by Kuida et al[67]).

TABLE 1

Classification of Causes of Pulmonary Vascular Disease

- Acute
  - Pulmonary embolism
- Subacute
  - Hematogenous dissemination
  - Lymphatic dissemination
- Chronic
  - Diffuse pulmonary parenchymal disease
    - Emphysema
    - Kyphoscoliosis
    - Pulmonary fibrosis
    - Pulmonary granulomatosis
  - Diffuse pulmonary vascular disease
    - Recurrent pulmonary embolism
    - Thrombosis of pulmonary artery
    - Sickle cell anemia
    - Schistosomiasis
    - Echinococcosis
    - Arteritis
      - Thromboangiitis obliterans
      - Polyarteritis nodosa
    - Idiopathic or primary
- Congenital heart disease
  - Atrial septal defect
  - Ventricular septal defect
  - Patent ductus arteriosis
- Lesions of the left side of the heart
  - Mitral stenosis
  - Chronic left ventricular failure, any cause

There is a form of pulmonary hypertension in which one is unable to identify any etiologic factor clinically, even after careful scrutiny. Such cases are, by definition, instances of primary pulmonary hypertension.

Aitchison and Richmond[68] studied such a case and at autopsy found evidence for necrotizing pulmonary arteritis. They thought there was a close relationship between the hypertension and the arteritis and favored the concept of a "malignant" ending to an idiopathic pulmonary hypertension.

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* EDITOR'S NOTE: This monograph, which is being published in four parts, is a thesis prepared by the author for advancement to Fellowship in the American College of Physicians. Parts I and II were published in the August and September issues. Part IV, the concluding section, will appear in the November issue of the MEDICAL ANNALS.

Kuida et al[67] stated that pulmonary hypertension is a distinct clinicopathologic entity characterized by pulmonary arterial and right ventricular hypertension. Right ventricular hypertrophy is uniformly present and may or may not be accompanied by right ventricular failure. The hypertension is the result, hemodynamically, of excessive increase in pulmonary vascular resistance and may reflect itself in the pulmonary vessels by a variety of vascular lesions. The pathogenesis of the ultimate vascular lesions remains obscure. Clinically the cases show a remarkable uniformity which is a reflection of pulmonary hypertension. Thus, it is difficult if not impossible on clinical grounds alone to differentiate this lesion from any of the multitude of conditions in which pulmonary hypertension is a secondary concomitant. Cardiac catheterization has provided valuable information on the pathophysiology of primary pulmonary hypertension and may be of great value in differential diagnosis, particularly in excluding congenital heart disease. The abnormal hemodynamic data that may be demonstrated by this technic, however, are not sufficiently specific to permit one to make a conclusive diagnosis. Such a definitive diagnosis is possible only by necropsy, and even here the exact mechanism may be difficult to define, although it is apparent now that many of the lesions in the pulmonary arteries represent the effect of pulmonary hypertension.

Dresdale, Schultz and Michtom[69] studied 3 cases of primary pulmonary hypertension and reviewed the literature on the subject. They presented the clinical features of this syndrome as follows:

The salient features are exertional weakness and dyspnea in patients who subsequently develop right heart failure without antecedent cardiac or pulmonary disease. Effort syncope and angina are most significant when present. Sudden death is not infrequent. The pertinent physical findings are a normal systemic blood pressure, clear lungs, and accentuated pulmonic second sound with variability or absence of heart murmurs. Venous distention and hepatomegaly occur unassociated with peripheral edema or ascites except late in the course of the disease. Cyanosis, when encountered, is a terminal feature unless the disease is complicated by a patent foramen ovale. This syndrome has been seen in both sexes at all ages but is most common between the ages of 20 and 40 years.

The electrocardiographic tracings are consistent with right ventricular hypertrophy. The characteristic X-ray findings are (1) right ventricular enlargement, (2) a bulging pulmonary artery segment, (3) prominent hilar vessels, and (4) normal or diminished intrapulmonary vascular markings.

Pulmonary function studies rule out intrinsic lung disease. Hemodynamic studies, utilizing the technic of right heart catheterization, show that all have greatly elevated pulmonary artery pressures, elevated right ventricular end-diastolic pressures, diminished cardiac output, increased arteriovenous oxygen differences, and normal arterial blood oxygen saturations. The blood volume and hematocrit are normal or slightly elevated. The locus of the increased resistance is in the small pulmonary arteries.

Marked right ventricular hypertrophy is a constant pathologic finding in primary pulmonary hypertension, but the nature, severity and distribution of the pulmonary vascular changes proximal to the capillary bed show considerable variation. In some cases no significant pulmonary vascular changes are noted.

OBESITY

In very recent years increasing observations have been made upon patients with extreme obesity to determine why some of them develop a syndrome called Pickwickian. This syndrome is characterized by obesity, marked somnolence, twitching, cyanosis, periodic respiration, secondary polycythemia, right ventricular hypertrophy, and right ventricular failure.

As Burwell et al[70] point out, the association of these characteristics has long been recognized. Older medical texts accepted the association of these signs and symptoms as well established. Burwell et al quote Wadd as follows: "A country tradesman, aged about 30, of a short stature and naturally of a fresh, sanguine complexion and very fat, applied to me for assistance. He complained of perpetual drowsiness and inactivity. His countenance was almost livid, and such a degree of somnolency attended him that he could scarce keep awake whilst he described his situation."

Additional reports recently have appeared discussing this syndrome, and physiologic studies have been made to explain the pathophysiology involved. Fundamentally underlying the disturbed physiology is the factor of increased effort on breathing. "Determinations of the work of breathing on obese subjects show that at lower levels of ventilation work done on the lung remains fairly normal; however, even at these levels work done in moving the chest bellows is abnormally high. As the tidal volume is increased the total work of breathing increases markedly. The obese person suffers from an increase not only in elastic resistance of the lung and chest wall, but also in the nonelastic resistances of the chest wall. The latter predominate and are probably related in large part to the augmented tissue viscosity and inertial forces which are involved in mobilization of the obese abdomen, the diaphragm and the chest. Some obese individuals adopt a breathing pattern in which total ventilation, respiratory frequency, tidal volume and alveolar ventilation are all abnormally low. Unfortunately, the natural history of obesity to the point of alveolar hypoventilation has not yet been documented. Consequently there remains to be defined: (1) the type of obese patient in whom alveolar hypoventilation develops, (2) the transition in breathing pattern which characterizes the onset of alveolar hypoventilation, and (3) the contribution of a depressed respiratory center to the breathing pattern once carbon dioxide retention is established."[65]

How then does hypercapnia develop when an adequate mechanism is present to prevent it? The explanation here is the same as that used to explain the hypercapnia of obstructive emphysema or respiratory poliomyelitis with inadequate chest muscles; viz., the amount of work necessary to keep the carbon dioxide pressure at a normal level continually is so great that the body compromises and allows the carbon dioxide to rise rather than put out the continuous excess effort necessary to keep the carbon dioxide at a normal level.

That the breathing is inefficient in aerating the lungs can be adduced from the tendency toward hypercapnia. Since the level of carbon dioxide pressure in the arterial blood is closely related to alveolar ventilation, it can be concluded that alveolar hypoventilation is present. With severe alveolar hypoventilation, a lowering of the alveolar oxygen tension and a fall in the arterial blood oxyhemoglobin saturation occur. A rise in the pulmonary artery pressure may also be associated with a low alveolar oxygen tension.

In addition to the generalized alveolar hypoventilation, poor distribution of the inspired air is indicated by the presence of a physiologic shunt. Carroll[71] demonstrated this shunt in one patient by measuring arterial blood oxygen tension while he was breathing pure oxygen. In a second patient he demonstrated such a shunt at the time of optimal cardiac compensation when hypercapnia was no longer present. These observations suggest that in addition to generalized alveolar hypoventilation there was inhomogeneity of distribution of inspired air.

Both of these factors probably contributed to the arterial blood oxyhemoglobin unsaturation. This abnormality in turn brought about polycythemia and an increased blood volume. It may be assumed that coronary artery blood oxyhemoglobin unsaturation was present. The heart therefore was called upon to pump more blood against an increased pulmonary artery pressure with a less efficient oxygen supply. Under these circumstances right ventricular hypertrophy might be expected to occur, with the development of electrocardiographic changes and finally right-sided heart failure.

Initial management of the congestive failure by digitalis, diuretics and reducing diet usually resulted in an early weight loss. This in turn was associated with prompt improvement of the vital capacity, expiratory reserve volume, pulmonary compliance and resistance, arterial oxygen saturation, and arterial carbon dioxide tension. Further improvement occurred after additional weight loss and phlebotomies.

The findings indicate that the work of breathing is markedly reduced after treatment, even though the weight loss is not great. It is suggested that the increased work of breathing is the important cause of the hypoventilation which occurs in this condition.

It is known that obesity leads to a low expiratory reserve volume and to a diminished functional residual capacity.[70] These changes have certain practical disadvantages in that they deprive the patient of certain buffer mechanisms normally available and permit unusual fluctuations in the blood gases. It has been observed that, by some mechanism in patients with a high degree of obesity, there is a tendency to shallow respiration. The precise mechanism by which obesity leads to shallow respiration is not known. Butler and Arnott[72] have shown that below the usual level of respiration, that is, as the lung approaches the expiratory position, the work of breathing increases. Therefore, the obese man with a diminished expiratory reserve volume will do more work than is normally required to maintain his alveolar ventilation. Such an increase in work may conceivably lead to a change in the type of breathing. If this work demand or some other change associated with obesity can lead to shallow respiration, then the rest of the sequence leading to alveolar hypoventilation is not difficult to explain.

It is suggested that periods of shallow breathing may develop under the mechanical conditions existing in obese patients, and that such periods of shallow breathing may in some patients set off a progressive and vicious cycle which in extreme cases may lead to the pitiable state of the Pickwickian syndrome. At any rate, there is accumulating evidence that in some individuals there is a critical degree of obesity at which ventilatory insufficiency appears.

SCHISTOSOMAL HEART DISEASE

Schistosomiasis is generally not considered a cause of heart disease directly, its principal sites of deposition being the liver, lung, and genitourinary tract. By virtue of its lung involvement it leads to a striking clinical and pathologic cardiac entity. Vesell and Schack[73] reported the first case of bilharzic cor pulmonale to be diagnosed antemortem in this country. Their case was that of a young rabbi who lived in Israel for 20 years before coming to this country. He had severe dyspnea, hematuria and cardiac enlargement. The presumptive diagnosis of schistosomal heart disease was made on the basis of the following: (1) history of bathing in Schistosoma-infected water, (2) onset of hematuria within 1 year thereafter, with no other cause of hematuria having been found, (3) the pulmonary and cardiac features, in particular the unique cardiac silhouette with aneurysmal dilatation of the major pulmonary arteries matching the proved case of Bedford and associates, and (4) schistosomiasis satisfactorily accounting for all the urinary, pulmonary, and cardiac findings with adequate exposure to such infection. The electrocardiogram showed marked right ventricular hypertrophy with marked right axis deviation. Chest X-ray films showed aneurysmal dilatation of the pulmonary artery and its branches. In this patient the ova were found to prove the diagnosis, but autopsy was not obtained.

In this disease it seems quite characteristic for the pulmonary artery to develop aneurysmal dilatation. This is so marked that congenital heart disease seriously enters into the differential diagnosis, e.g., interatrial septal defect and pulmonic stenosis with post-stenotic dilatation. This pronounced pathologic feature is thought to be due to pulmonary hypertension resulting from obliterative arteritis caused by Schistosoma ova.[74]

Schick et al[75] indicate the rising importance of schistosomiasis in this country due to the heavy influx of Puerto Ricans to whom this disease is indigenous. They reported a patient under treatment with Fuadin who developed ventricular tachycardia and sudden death. They quoted numerous instances of sudden death in patients receiving therapy with antimony. Since pulmonary hypertension is prominent in these patients it is pertinent to point out that sudden death is characteristic in "primary pulmonary hypertension."

Diagnosis and Differential Diagnosis

A history of long-standing pulmonary disease is present in most instances of chronic cor pulmonale. In primary pulmonary vascular disease, or in essential pulmonary hypertension, the history of illness is of relatively short duration, a few months to a year or two. Dyspnea and fatigue are rapid in onset. In contrast, in emphysematous subjects dyspnea usually precedes heart failure for years, or there may be a history of asthma for years. In primary pulmonary vascular disease the early manifestations are those of the underlying disease upon which are superimposed, gradually or abruptly, the symptoms of pulmonary hypertension. The latter include fatigue, dizziness, syncope, and angina-like chest pains with atypical radiation. The latter may be relieved by nitroglycerine. That the pain occurs on exercise is not surprising, since under these conditions a sharp increase in total pulmonary resistance associated with increased work performance occurs frequently. Once the symptoms become pronounced, the course is rapidly downhill, terminating fatally within weeks or months. Sudden death is common.

In the absence of congestive heart failure these people do not have orthopnea; emphysematous subjects are usually quite comfortable lying flat. Clinically, the onset of right heart failure may be insidious, with gradually increasing edema of the ankles and legs over days or weeks; on the other hand, right heart failure may appear suddenly, especially during an acute respiratory infection and acute pulmonary insufficiency.

The clinical identification of a primary pulmonary etiology for the heart failure is supported when arterial blood analyses show that oxyhemoglobin saturation is below 85 per cent, when polycythemia is marked, and when the content and partial pressure of carbon dioxide are increased. When, however, pulmonary insufficiency and dyspnea are present without disturbances in blood gas composition, the differentiation of cor pulmonale from combined right and left heart failure may be difficult. In this case urgent orthopnea, as elicited by the appearance of both dyspnea and basal pulmonary rales after a few minutes in the supine position, may serve as a useful index of left ventricular failure.[2]

Gallop rhythm is common in cor pulmonale, but permanent arrhythmias, such as atrial flutter or fibrillation, are rare. The occurrence of hydrothorax is uncommon in cor pulmonale, even after the advent of frank congestive failure.

In older patients with cor pulmonale there may well be a contribution of left ventricular failure due to independent left heart disease. The presence of intrinsic left ventricular disease may be suggested by orthopnea and supported by X-ray and electrocardiographic evidence of left ventricular hypertrophy. Nonetheless, in individual instances, particularly in the acute congestive stages, the element of left ventricular failure may be difficult to establish; in this respect, it is worthy of note that physiologic identification of the predominant ventricular failure may be facilitated by measurements of pulmonary artery pressure and flow during right-heart catheterization. This distinction is based on the change in pulmonary artery pressure which follows acute digitalization, i.e., a fall in pressure in patients with predominant left ventricular failure as opposed to a rise in patients with predominant right ventricular failure due to cor pulmonale.[2]

PHYSICAL EXAMINATION

Gelfand[76] states that the physical signs and symptoms may be divided into 2 phases, an early pulmonary or precardiac phase and a later cardiac phase. The cough, rhonchi, expectoration, dyspnea, cyanosis, polycythemia, clubbing of the fingers, flaring of the ribs, and fixation of the diaphragm are characteristic of the first phase, plus the underlying bronchial asthma and emphysema. The outstanding features of the second phase are the engorged veins, enlarged and tender liver, generalized edema, and increased venous pressure. The transition from one phase to the other is more difficult to detect, since dyspnea and cyanosis, the early signs of cardiac failure, are also indicative of the underlying pulmonary disease. However, an increase in these findings or the appearance of orthopnea suggests the onset of strain on the right side of the heart. It is well known that patients with emphysema breathe more comfortably lying down, whereas those with cardiac dyspnea are relieved by sitting upright.

Brill[1] presents the important physical signs as follows: There are dyspnea, apprehensiveness and cyanosis. Clubbing of the fingers may be present. The heart may or may not show enlargement on percussion. Palpation may reveal a pronounced lower or left parasternal thrust and increased systolic pulsations in the area of the conus arteriosus. A diastolic "shock" may be felt in the pulmonary area due to forcible closure of the pulmonic valves. The pulmonic second sound is greatly accentuated, and systolic and diastolic murmurs along the left border of the sternum are common. Gallop rhythm may be present.

Demonstration at the bedside of right ventricular hypertrophy by palpation of the precordium is usually possible, even in adults, but the expanded, fixed "inspiratory" position of the chest cage in ventilatory defects commonly makes it difficult to demonstrate this directly in the emphysema heart. Therefore, an accentuated second pulmonic sound assumes importance. By "accentuation" it is implied that the second pulmonic sound (1) is much louder than the first, (2) is louder than the second sound in the aortic area, and (3) that first aortic and pulmonary sounds are almost equal.[4]

In pulmonary hypertension, whatever the cause, loud systolic murmurs may appear along the left sternal border. They may be loud enough to simulate congenital heart disease of mitral insufficiency. A dilated pulmonary valve ring may cause the high-pressure diastolic flow of pulmonary regurgitation.

There may be paradoxical pulsations, or rather the accentuation of the normal respiratory decrease in pulse amplitude. This may be so marked that constrictive pericarditis may be suspected.[4]

ROENTGEN DIAGNOSIS

Brill[1] briefly stated his ideas of the X-ray diagnosis of chronic cor pulmonale as follows: Radiographically the most characteristic finding is a prominent pulmonary artery segment on the left border of the heart. The vascular markings in the peripheral portion of the lungs will vary with the underlying cause; they may be normal, greatly increased as in atrial septal defects and in mitral stenosis, or greatly diminished as in primary pulmonary vascular sclerosis and essential pulmonary hypertension. The heart may or may not appear enlarged; in the stage of hypertrophy without dilatation the right ventricle often looks normal on the posteroanterior film. With pronounced right ventricular hypertrophy and clockwise rotation of the heart, the cardiac silhouette is often enlarged to the left and may be wrongly interpreted as left ventricular hypertrophy. In point of fact, this leftward extension of the cardiac shadow is due to enlargement of the right ventricle; at autopsy the left ventricle may be found to be even smaller than normal.

Hecht[4] states that in the emphysematous chest the heart shadows in the posteroanterior view often demonstrate a lifted apex, due to right ventricular hypertrophy, and a bulging pulmonary artery, but a completely normal cardiac shadow may be observed in the face of arterial desaturation, pulmonary hypertension, and erythrocytosis.

From the radiologic study of pulmonary hypertensive heart disease and particularly of essential pulmonary hypertension have emerged helpful and almost pathognomonic findings. There is (1) a normal chest cage, (2) cardiac enlargement, often of an unusual degree, (3) heavy central hilar vascular shadows with an accentuated pulmonary conus, (4) a striking decrease in vascularity of the distal pulmonary field, and (5) absence of left atrial distention. The above can be differentiated radiologically from the pulmonary hypertensive heart disease secondary to massive unilateral emboli or thrombosis in situ, because in the latter decrease of vascularity and accentuation of the central vessels are confined to one lobe or one lung in posteroanterior films or during angiography. Massive unilateral embolism often demonstrates distention and pulsation of the vessels leading to the involved lobe, occasionally resulting in a localized or unilateral "hilar dance."

Sussman, Steinberg and Grishman, employing contrast cardiography, were able to demonstrate dilatation of the pulmonary artery and right ventricle in 24 of 28 cases of emphysema. In this group there were 8 cases with associated bronchial asthma. Subsequent work by the same authors indicated that the enlargement of the shadow on the right depends on the existence of right auricular dilatation and that this together with the prominence of the middle left cardiac segment are indirect signs of right ventricular dilatation.

In 1955 Sussman and Jacobson[77] put forth a critical evaluation of the roentgen criteria of right ventricular enlargement. They indicated that since the advent of angiocardiography doubt has been cast on the usual criteria of right ventricular hypertrophy.

In 1956 Dotter[78] expressed an urgency in the need for reëvaluating roentgen criteria for cardiovascular diagnosis. He stated that marked ventricular enlargement may be impossible to identify radiologically, since the 2 ventricles form a homogeneous shadow and are usually indistinguishable from each other by conventional roentgenography or fluoroscopy. It is particularly difficult to determine which ventricle predominates when both are enlarged; here the electrocardiogram is usually more reliable. Enlargement of any cardiac chamber takes place in 3 dimensions and thus may displace and thereby simulate enlargement of adjacent chambers. It is common knowledge that in mitral stenosis the left atrium enlarges posteriorly, to both sides, and superiorly. Not so well known, although clearly established by angiocardiography, is the fact that it also enlarges anteriorly, displacing the right ventricle and atrium, thereby exaggerating the anterior convexity of the heart and reducing the retrosternal clear space.

In compensated cor pulmonale the cardiac silhouette is usually normal in size and contour. In such a situation enlargement of the right ventricle is more often inferred than demonstrated. Pathologists state that hypertrophy exists when the right ventricular wall is over 5 mm. thick. This criterion is in good agreement with the electrocardiographic findings. In the absence of dilatation, if the right ventricular wall were doubled in thickness, the total resultant increase in transverse cardiac diameter would be but 1 cm. Cardiac contraction normally causes this much change in the transverse diameter.[78]

One of the most important conventional radiologic approaches to the diagnosis of a variety of acquired and congenital cardiovascular lesions lies in the study of the pulmonary arteries. Enlargement of the central pulmonary arteries occurs in response to (1) pulmonary hypertension, (2) increased pulmonary blood flow, and (3) as a result of local turbulence (poststenotic). The degree to which peripheral branches share in the dilatation often provides a clue to the basic lesion. In simple interatrial septal defect there occurs a marked increase in pulmonary flow, and the resultant dilatation characteristically includes peripheral as well as central branches. In primary pulmonary hypertension and in the secondary forms that are not accompanied by an increased pulmonary flow (mitral stenosis), enlargement is usually central while peripheral branches appear smaller than normal. This appears, roughly, to correlate with pathologic evidence of pulmonary arteriolar hypertrophy. A moment's fluoroscopy or a glance at a frontal chest film usually allows a fairly definite opinion concerning pulmonary blood flow. Coupled with information as to the presence or absence of cyanosis, observation of the lung fields is probably the most useful radiologic contribution to diagnosis in pulmonary heart disease.

ELECTROCARDIOGRAPHIC ALTERATIONS

Most authors writing on this subject very glibly use the expression "electrocardiographic evidence of right ventricular hypertrophy" and present a few criteria for the identification of such an entity. As noted above, serious radiologists cast doubt on their own ability to diagnose right ventricular hypertrophy with consistent accuracy and declare that electrocardiography is a more reliable technic in this regard. However, there are electrocardiographers who have equally strong doubt about the reliability of the electrocardiographic approach, both scalar and vectorial.

Brill's discussion[1] of chronic cor pulmonale includes a section on electrocardiography which is succinct and typifies the opinions of most cardiologists—Hecht,[4] Scott et al,[79] Gelfand,[76] Samuelsson,[24] Schaub et al,[64] Sokolow and Lyon,[80] Myers et al.[81]

"The electrocardiogram offers important aid in the diagnosis of cor pulmonale. The most definitive evidence of right ventricular hypertrophy is a reversal of the QRS pattern in the precordial leads. The right precordial leads (V_4R, V_3R, V_1, V_2) exhibit tall R waves with relatively small S waves; the left precordial leads (V_5, V_6) have small R waves and relatively deep S waves. The onset of the intrinsicoid deflection is delayed in the right precordial leads and accelerated in the left, averaging from 0.03 to 0.05 second in the former, and 0.02 to 0.03 second in the latter —a reversal of the normal relationship. The T waves are usually inverted in V_1 to V_4, and upright in V_5 and V_6; occasionally they are inverted in all the precordial leads, probably as a reflection of associated left ventricular disease.

"Less definitive patterns associated with cor pulmonale are incomplete, and less frequently complete right bundle-branch block. The latter is more often seen in primary left ventricular disease but occasionally is encountered as a complication of cor pulmonale.

"The standard leads usually exhibit marked right axis deviation. This is a nonspecific sign dependent upon the vertical position and clockwise rotation of the heart. However, since right axis deviation is the most constant single finding in the electrocardiogram of right ventricular hypertrophy, it must be regarded as an important component of the cor pulmonale pattern.

"Tall, sharply-spiked P waves (p pulmonale) are often seen in standard leads II and III and in AVF, probably a reflection of right auricular hypertrophy or dilatation. Although not pathognomonic, this finding affords confirmatory evidence for the diagnosis of cor pulmonale.

"Two points merit special emphasis: (1) The patterns associated with cor pulmonale are independent of etiology; similar or almost identical tracings may be obtained in atrial septal defect, in primary pulmonary vascular sclerosis, or in mitral stenosis. (2) A completely normal tracing may be found in well-advanced cases of cor pulmonale; hence, the absence of electrocardiographic evidence of right ventricular hypertrophy does not exclude this lesion."[1]

These same criteria may be tabulated as follows[79]:

1. A qR pattern in V_{3R} or V_1
2. An R wave in V_1 of 7 mm. or greater
3. An R/S ratio in V_1 greater than 1
4. A delay in the onset of the intrinsicoid deflection in V_1 from 0.035 to 0.05 second
5. Incomplete right bundle-branch block diagnosed on the basis of an rSR′ pattern in V_{3R} or V_1 with delay in the onset of the intrinsicoid deflection of R′ from between 0.05 and 0.075 second
6. If the height of R′ exceeded 10 mm. it was taken as evidence of right ventricular hypertrophy in addition to incomplete right bundle-branch block
7. The P waves in the standard leads were considered to be abnormal if they were 0.12 second or greater in duration or 3 mm. or more in height, or were notched.

Hecht[4] points out that in the emphysema heart right-sided precordial leads often show a qR pattern. In many instances of cor pulmonale, leads from the ensiform process (V_e) are often helpful in proving the presence of right ventricular hypertrophy. Others suggest the V_{3R} lead to assist in the diagnosis. In this situation a normal sR pattern is replaced by a qR or an R or RR′ with an inverted T.

Incomplete right bundle-branch block, in which there is a double peaking of the R wave in V_1 and a relatively broad S wave in V_6 with the duration of the QRS 0.10 second or less, as well as complete bundle-branch block, in which the QRS is greater than 0.11 second, are frequent, although by no means pathognomonic patterns of hypertrophy of the right ventricle. Blount et al[82] present hemodynamic evidence to support the concept that the rSR[1] pattern with a total QRS time of 0.08 to 0.1 second is due to hypertrophy of the right ventricular outflow tract rather than to incomplete right bundle-branch block. Hecht and Milnor agree with this statement, but Milnor was not able to find any correlation in his series of patients between right ventricular hypertrophy and QRS duration. He therefore does include complete right bundle-branch block among his criteria of right ventricular hypertrophy.

Milnor[83] has greatly simplified his criteria of right ventricular hypertrophy:

1. QRS duration less than 0.12 second
2. Either (a) mean frontal plane axis from +110° to ±180°, or −90° to ±180°
   (b) R/S or R′/S ratio in V_1 greater than 1.0, with R or R′ greater than 5 mm.

Milnor states that the spatial vectorcardiogram is sometimes helpful in establishing the presence of heart disease in a patient with the electrocardiographic pattern of complete right bundle-branch block, since figure 8 or clockwise rotation of the QRS sE-loop in the transverse projection has not been observed in normal persons, even with prolonged QRS duration. In right ventricular hypertrophy, on transverse projection, QRS rotation is clockwise or figure 8 in the majority of cases, but this also occurs with coronary artery heart disease and is therefore not pathognomonic. Initial QRS vectors or other characteristics of the QRS sE-loop do not help to distinguish the cases of coronary disease.

Terminal slowing of the QRS sE-loop occurs in most cases with electrocardiographic pattern of complete right bundle-branch block but at present provides no diagnostic information beyond that available from the QRS contour and duration in the scalar electrocardiogram.[83]

Milnor states that all electrocardiographic criteria of right ventricular hypertrophy, including his own, fail most often in older persons with chronic cor pulmonale. Such patients often have a mean frontal QRS axis from +80° to +100°, and an R/S ratio in V_6 of 1.0 or less, although V_1 is normal. In persons over the age of 40 these characteristics may be regarded as presumptive evidence of cor pulmonale, although they may occasionally occur with arteriosclerotic heart disease.

Walker, Helm and Scott[84] studied the electrocardiograms of 22 patients showing isolated right ventricular hypertrophy at autopsy. Only 5 of these 22 fulfilled at least 1 of the criteria of Sokolow and Lyon,[80] and only 3 could be diagnosed as having right ventricular hypertrophy by the criteria of Myers, Klein and Stofer.[81] The authors thought that factors other than right ventricular muscle mass contribute to the electrocardiographic pattern of right ventricular hypertrophy, viz., right ventricular and pulmonary artery pressure, pulmonary resistance, cardiac rotation, and abnormal depolarization of the septum.[85]

As a result of hemodynamic studies on patients with chronic cor pulmonale Scott et al[79] found that the pattern of right ventricular hypertrophy was associated with a mean pulmonary artery pressure greater than 30 mm. Hg and a total pulmonary resistance exceeding 750 dynes seconds cm^{-5}. They thought that the development of the pattern of right ventricular hypertrophy in patients with chronic cor pulmonale usually indicated an advanced state of the disease.

An interesting new approach to the diagnosis by electrocardiography of emphysema heart was very recently presented by Wasserburger et al.[86] They summarized their paper as follows:

1. It appears that clinically evident pulmonary emphysema may alter the auricular repolarization pattern. This is expressed as increased P-wave amplitude and exaggerated T-a wave depression, as seen in standard lead II of the adult electrocardiogram. This increase in mean P-wave amplitude is independent of the cardiac rate until one approaches the value of 100 per minute.

2. T-a wave depression of 0.75 mm. or greater, vertical cardiac placement, and a cardiac rate of 100 per minute or less are highly suggestive of advanced pulmonary emphysema.

3. T-a wave depression of 1.0 mm. or more with vertical position and a heart rate between 100 and 115 per minute have similar implications.

4. The electrocardiographic pattern of a short P-R interval (0.12 second or less) and resultant gross depression of the succeeding R-ST segment in the vertically placed heart is offered as an additional expression of pulmonary emphysema.

5. Roentgenographic analysis of existing pulmonary emphysema is highly accurate and correlates with observed pulmonary function data.

6. It is thought that pulmonary emphysema, exclusive of chronic cor pulmonale, merits additional recognition as a frequent factor in the production of prominent P waves as seen on routine electrocardiographic survey.

The above work was inspired by a study reported 2 years earlier by Gross.[87] He had found that displacement of the P-Ta segment was pronounced in patients with mitral valve disease and chronic pulmonary disease. He thought this was due entirely to the increased size of the P wave.

VECTORCARDIOGRAPHY

Since the introduction of vectorcardiography the diagnosis of right ventricular hypertrophy has stood on firmer grounds. Unfortunately, several leads systems are in use, and proponents of each have set up criteria which do not entirely dovetail with each other. Milnor was quoted above. Gelfand et al[76] concluded that the tetrahedron lead system provides a more sensitive method in diagnosing milder degrees of right ventricular hypertrophy than the cube system and the scalar electrocardiogram. In cases with advanced right ventricular hypertrophy and with a diagnostic scalar electrocardiogram, they found the direction of the QRS sE-loop to be invariably reversed in the horizontal and/or sagittal plane.

Elek et al[88] made a vectorcardiographic study of 34 patients with congenital heart disease and mitral stenosis. They found that with increasing right ventricular work there is an increased rightward and anterior deviation of the horizontal plane loop and of the spatial vectorcardio-

(*Continued on page 562*)

METI-DERM AEROSOL IN DERMATOSES

A Clinical Note

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TOPICAL PREDNISOLONE in the form of creams, lotions, or ointments is used widely and effectively in many dermatoses. The aerosol form of one of these preparations, Meti-Derm, was introduced recently as an alternate vehicle of therapy in conditions amenable to treatment with Meti-Derm cream. It contains 50 mg. prednisolone, isopropyl myristate, and Freon as a propellant. Since it appeared that the aerosol might possess certain advantages over the cream it was decided to evaluate it among a group of dermatologic patients.

Meti-Derm aerosol* was used in 9 children with atopic infantile eczema, 46 patients with atopic dermatitis, 28 patients with contact dermatitis, 14 women with contact eczema of the hands, and 6 patients with herpes zoster. No other medication was used except in the cases of infantile eczema, for which starch baths were prescribed also.

Most patients were advised to spray the affected area for 3 to 5 seconds (this delivers approximately 0.5 mg. prednisolone) twice during the first hour of use, every 4 hours during the first day, and every 8 hours thereafter for a maximum of 3 weeks. The patients with herpes zoster used the spray every 2 hours for 12, every 6 hours for 24, and every 8 hours thereafter for 4 days. Mothers of the infants with eczema were advised to cover the child's eyes and mouth with wet gauze while the affected areas were sprayed.

A placebo aerosol spray was used on 10 patients. Similar areas on the body were treated with Meti-Derm aerosol. The placebo spray had no therapeutic effect on these patients.

Results with the aerosol were at least as good as those which could have been expected from the cream, and there were no adverse reactions. All patients with atopic and contact dermatitis reported rapid relief of symptoms, often during the first day of use, and objective evidence of improvement usually followed within several days. Within 1 hour, after 2 applications, there was very good relief in the infants with eczema. The housewives with contact eczema experienced nearly complete relief within 1 week and they were advised to use rubber gloves thereafter. Treatment usually was initiated immediately after an acute outbreak, and symptoms disappeared far more rapidly than could have been expected in self-limited conditions.

Meti-Derm aerosol was especially useful in the patients with herpes zoster, all of whom reported rapid relief from the burning, tingling pain. The aerosol is indicated in this condition because lesions are not covered by sticky lotions or softening creams; they remain firm, and the progress of healing can be observed without removing medication.

The special advantages of Meti-Derm aerosol are that it is nongreasy and nonstaining, lasts longer than the cream, and is more uniformly applied. It is especially suitable when a large or hairy area must be medicated.

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* The author wishes to thank Dr. G. Kenneth Hawkins of the Division of Clinical Research, Schering Corporation, Bloomfield, New Jersey, for providing clinical trial supplies of Meti-Derm aerosol.

President's Page

CAN DOCTORS KEEP UP WITH MEDICAL PROGRESS?

At the time of the AMA Convention in San Francisco a provocative article appeared in the *Wall Street Journal* entitled, "Medical Science Is Accelerating; Can Doctors Keep Up?" A number of physicians interviewed concluded that keeping up is an increasingly difficult task.

There are literally hundreds of medical journals published in this country alone. Our ethical drug laboratories turn out about 400 new drugs a year, send out samples accompanied by literature, and follow up by sending well-informed sales representatives to physicians' offices. New antibiotics, tranquilizers and other drugs may appear on the market before we have learned the value of the last one. Also, competing for the doctor's time is a succession of hospital staff meetings and medical conventions. The problem is to select from all these sources the methods that will keep him best informed.

One of the most enlightened internists I know reads four carefully selected medical journals from cover to cover each month. A friend in general practice calls a consultant whenever he sees an unusual or seriously ill patient. He meets the consultant at the patient's bedside and questions him about the diagnosis and treatment. As I make ward rounds I glance into the library and see the same roentgenologist intent on a journal. He reads one or two hours every day after lunch to keep abreast of new developments.

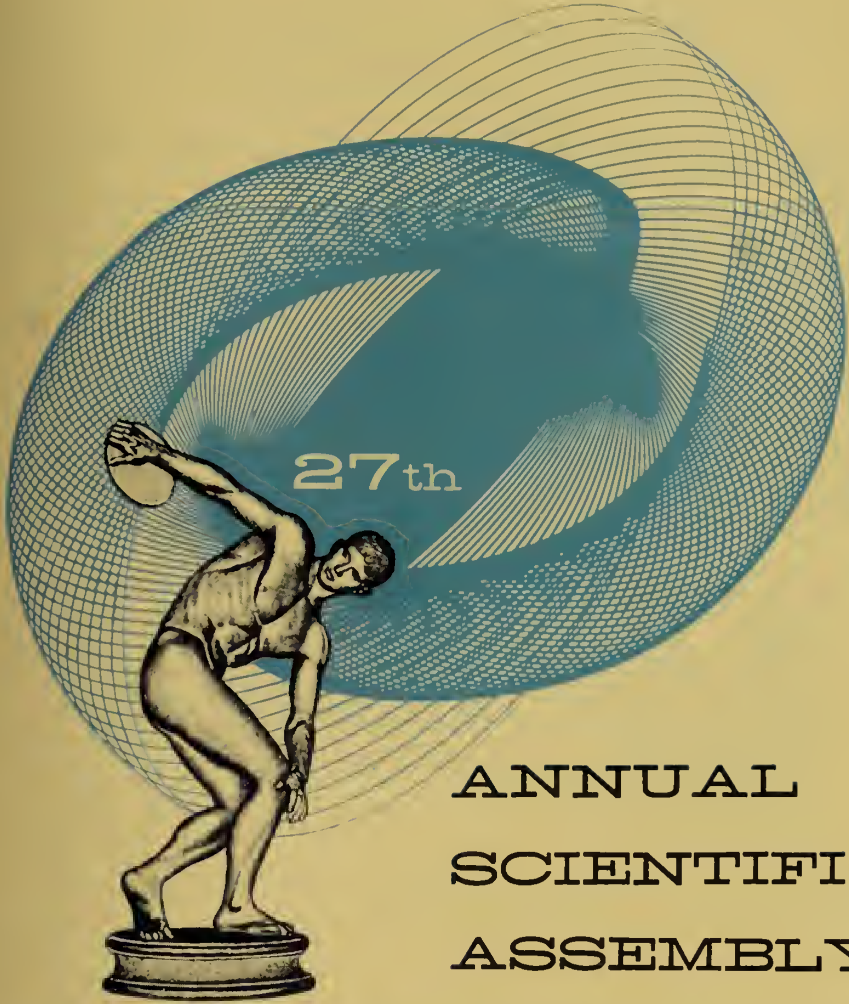
Perhaps a majority of us look up articles in connection with cases we see in our own practice and attend our own specialty society meetings.

For a number of years after completing my residency and starting practice, general medical and surgical meetings lacked appeal. The problems and discussions seemed the same I had heard as an intern. Naturally, meetings devoted to my own specialty were interesting, and every new advance, even a minor one, was exciting.

Then I became aware that many of the contributions with a significant influence originate outside of one's own specialty. Advances in anesthesiology have made possible operations on the heart, lungs and brain which had a prohibitive mortality a few years ago. Tranquilizing drugs from the chemical laboratory have had a profound effect on psychiatric management. Several types of heart disease, once entirely within the province of medicine, are now responding to surgical therapy.

The 27th ANNUAL SCIENTIFIC ASSEMBLY has been planned to meet what I believe is our greatest need—the discussion of problems that cut across specialty lines. One conference will be held on fluids and electrolytes. Though this may not be as complicated as the experts make it appear, there are few who will not learn something of value from the panel discussion and informal workshop which follow. The success of the Salk vaccine raises hope of immunization against other viruses and makes the conference on recent advances in virology a live subject. There will be other panel discussions on the management of the surgical patient, congestive heart failure, and psychiatry in general office practice.

James W. Watts



ANNUAL SCIENTIFIC ASSEMBLY

OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

THE STATLER-HILTON
WASHINGTON, D. C.
NOVEMBER 24-25-26, 1958

THE HEART OF THE ASSEMBLY

Dr. Moran

As in years past, the success of this year's Annual Scientific Assembly will depend upon the quality of the scientific program.

I am confident that physicians who examine the program which appears on the following pages will agree with me that from the standpoint of content it is not only superior but one of the best that has been offered in connection with the Assembly. What they will also find impressive is the eminence of the speakers in their respective fields.

In giving high praise to the program, I am fully aware that there are other outstanding features of the Assembly which deserve and will receive enthusiastic acceptance by those in attendance. They include the Scientific Exhibit, a very selective motion picture program, highly interesting displays in the Technical Exhibit, and a number of enjoyable social events, all of which are described in this section of the Medical Annals.

I would be remiss if I did not acknowledge that credit for the coming Assembly is largely due the various chairmen and members of their committees who have so ably carried out their assignments. To them I wish to express my gratitude for a task well done.

Finally, I wish to join officers of this Society in welcoming all physicians in the District and several states who have in the past attended the Assembly or who contemplate for the first time doing so. It is my sincere hope that they will find their attendance both profitable and enjoyable.

Robert E. Moran.

General Chairman
Committee on Arrangements

27th ANNUAL SCIENTIFIC ASSEMBLY

MEDICINE AT MID-CENTURY

SCIENTIFIC PROGRAM

All Sessions Unless Otherwise Indicated in the Presidential Ballroom, Hotel Statler

MONDAY, NOVEMBER 24—MORNING SESSION

James Winston Watts, M.D., *Presiding*

President, The Medical Society of the District of Columbia

9:30 Welcome from the President

CONFERENCE ON CONGESTIVE HEART FAILURE

PRESENTED BY
Washington Heart Association

9:35 Introduction
George E. Schreiner, M.D.
Chairman, Program Committee, The Medical Society of the District of Columbia; Chairman, Scientific Council, Washington Heart Association

9:45 The Heart in Congestive Failure
Eugene A. Stead, M.D.
Professor and Chairman of the Department of Medicine, Duke University School of Medicine

10:15 The Patient in Congestive Failure
Samuel A. Levine, M.D.
Clinical Professor of Medicine, Harvard Medical School; Staff Member, Peter Bent Brigham and New England Baptist Hospitals; Consultant Cardiologist, Newton-Wellesley Hospital

Dr. Stead

Dr. Levine

10:45 PANEL DISCUSSION ON GENERAL QUESTIONS
Moderator:
Hugh H. Hussey, M.D., Dean, Georgetown University School of Medicine
Panelists: Drs. Stead and Levine

11:15 INFORMAL TABLE WORKSHOPS

These workshops will provide an opportunity to discuss practical and controversial questions and case problems. One preceptor will be assigned to each table, which will accommodate 10 to 11 physicians. If you wish to join the discussion with a particular preceptor, it will be necessary to sit at the appropriately numbered table.

Table 1: Dr. Eugene A. Stead, Duke University
Table 2: Dr. Samuel A. Levine, Peter Bent Brigham Hospital

Table 3: Dr. Hugh H. Hussey, Georgetown University
Table 4: Dr. W. Proctor Harvey, Georgetown University
Table 5: Dr. John Patterson, Medical College of Virginia, Richmond
Table 6: Dr. John M. Evans, George Washington University
Table 7: Dr. Preston B. Lowrance, University of Virginia, Charlottesville
Table 8: Brig. General Thomas W. Mattingly, M.C., U.S.A. (Ret.), Washington Hospital Center
Table 9: Dr. Andrew G. Prandoni, President, Washington Heart Association

11:15 SEMINAR: INTENSIVE COURSE IN COMMON DISEASES OF THE MIDDLE AND EXTERNAL EAR (Pan American Room)

Irvin Hantman, M.D.
Associate Professor of Otolaryngology, Georgetown University School of Medicine

This course is of special interest to general practitioners and pediatricians. Color photographs.

12:15 Recess for Luncheon

MONDAY, NOVEMBER 24—AFTERNOON SESSION

George E. Schreiner, M.D., *Presiding*

Chairman, Program Committee, 27th Annual Scientific Assembly

CONFERENCE ON FLUID AND ELECTROLYTES

Dr. Welt

Dr. Relman

2:20 Pathogenesis and Management of Potassium Deficiency
Louis G. Welt, M.D.
Professor of Medicine, University of North Carolina School of Medicine

2:50 The Mechanism of Action of Diuretics and Some Complications Resulting from Their Use
Arnold S. Relman, M.D.
Associate Professor of Medicine, Boston University School of Medicine; Chief of the Renal and Metabolic Division, Memorial Department, Massachusetts Memorial Hospitals

3:30 PANEL DISCUSSION ON GENERAL QUESTIONS
Moderator:
Laurence H. Kyle, M.D., Professor and Chairman, Department of Medicine, Georgetown University School of Medicine
Panelists: Drs. Welt and Relman

4:00 INFORMAL TABLE WORKSHOPS

These workshops will provide an opportunity to discuss practical and controversial questions and case problems. One preceptor will be assigned to each table, which will accommodate 10 to 11 physicians. If you wish to join the discussion with a particular preceptor, it will be necessary to sit at the appropriately numbered table.

Table 1: Dr. Louis G. Welt, University of North Carolina
Table 2: Dr. Arnold S. Relman, Boston University
Table 3: Dr. Laurence H. Kyle, Georgetown University
Table 4: Dr. John B. Johnson, Howard University
Table 5: Dr. Alvin E. Parrish, George Washington University
Table 6: Dr. George E. Schreiner, Georgetown University
Table 7: Dr. Joseph M. LoPresti, Children's Hospital
Table 8: Dr. Leonard S. Berman, Georgetown University and D. C. General Hospital
Table 9: Lt. Colonel E. Garland Herndon, Jr., M.C., U.S.A., Walter Reed Army Medical Center

4:45 Adjournment

TUESDAY, NOVEMBER 25—MORNING SESSION

Dorothy B. Holmes, M.D., *Presiding*

Second Vice President, The Medical Society of the District of Columbia

CONFERENCE ON RECENT ADVANCES IN VIROLOGY

Dr. Huebner

Dr. Utz

Dr. Koprowski

9:30 The Immunization of Man with Live Attenuated Poliomyelitis Virus
Hilary Koprowski, M.D.
Director, The Wistar Institute, Philadelphia

10:00 Experiences with Killed Multi-viral Vaccines
Robert J. Huebner, M.D.
Chief, Laboratory of Infectious Diseases, National Institutes of Health, Public Health Service

10:15 Recent Developments in Respiratory Viral Diseases
Robert H. Parrott, M.D.
Physician-in-chief, Children's Hospital, Washington

10:30 Enteric Viral Infections
Leon Rosen, M.D.
Chief, Epidemiological Laboratory Unit of Infectious Diseases, National Institutes of Health, Public Health Service

10:45 Virus and the Urinary Tract
John P. Utz, M.D.
Clinical Assistant Professor of Medicine, Georgetown University School of Medicine

11:00 Intermission

11:15 PANEL DISCUSSION ON GENERAL PROBLEMS IN VIROLOGY
Moderator: **John P. Utz, M.D.**
Panelists: Drs. Koprowski, Huebner, Parrott and Rosen

12:00 Recess for Luncheon

TUESDAY, NOVEMBER 25—AFTERNOON SESSION

Duane C. Richtmeyer, M.D., *Presiding*

First Vice President, The Medical Society of the District of Columbia

PROBLEMS IN THE MANAGEMENT OF SURGICAL PATIENTS

2:05 Cell Function in the Management of Surgical Patients

L. Corsan Reid, M.D., Department of Surgery, New York University-Bellevue Medical Center

Dr. Reid

2:45 Management of Anesthetic Complications of Surgery

Donald Stubbs, M.D.

Clinical Professor of Anesthesiology, George Washington University School of Medicine

3:00 Management of Urologic Complications of Surgery

Roger Baker, M.D.

Professor of Urology, Georgetown University School of Medicine

3:15 Wound Infection in Surgical Patients

Monroe J. Romansky, M.D.

Professor of Medicine, George Washington University School of Medicine

3:30 Intermission

3:45 PANEL DISCUSSION ON MANAGEMENT OF COMPLICATIONS IN SURGICAL PATIENTS

Moderator:

Charles A. Hufnagel, M.D., Professor of Experimental Surgery, Georgetown University School of Medicine

Panelists: Drs. Reid, Stubbs, Baker and Romansky

4:15 Adjournment

TUESDAY, NOVEMBER 25—AFTERNOON SESSION

(PAN AMERICAN ROOM)

Herbert P. Ramsey M.D., *Presiding*

Chairman, Executive Board, The Medical Society of the District of Columbia

CONFERENCE ON TOXEMIA OF PREGNANCY

2:10 Toxemia of Pregnancy; Socio-economic Background

Robert A. Ross, M.D.

Department of Obstetrics and Gynecology, University of North Carolina

2:40 Toxemia from an Internist's Point of View

Frank A. Finnerty, Jr., M.D.

Assistant Professor of Medicine, Georgetown University School of Medicine

3:15 Intermission

3:30 PANEL DISCUSSION ON TOXEMIA OF PREGNANCY

Moderator:

Andrew A. Marchetti, M.D., Professor of Obstetrics and Gynecology, Georgetown University School of Medicine

Panelists: Drs. Ross and Finnerty and Comdr. Thomas B. Lebherz, M.C., U.S.N., Chief Obstetrician, United States Naval Medical Center

4:30 Adjournment

Dr. Ross

WEDNESDAY, NOVEMBER 26—MORNING SESSION

Robert E. Moran, M.D., *Presiding*

General Chairman, Committee on Arrangements, 27th Annual Scientific Assembly

CONFERENCE ON EVERY-DAY PSYCHIATRY IN GENERAL OFFICE PRACTICE

Dr. Terhune

Dr. Goshen

Dr. Gardner

9:40 THE PROBLEM OF PSYCHIATRY IN GENERAL PRACTICE

Charles E. Goshen, M.D.

Project Director, The General Practitioner Education Project, American Psychiatric Association

10:00 OFFICE MANAGEMENT OF CHILDHOOD PSYCHIATRIC PROBLEMS

George E. Gardner, M.D.

Director, Judge Baker Child Guidance Clinic, Boston; Clinical Professor of Psychiatry, Harvard Medical School

10:30 THE OFFICE MANAGEMENT OF ADULT PSYCHIATRIC PROBLEMS

William B. Terhune, M.D.

Medical Director, Silver Hill Foundation, New Canaan, Conn.

11:00 INTERMISSION

11:15 PANEL DISCUSSION ON PSYCHIATRIC PROBLEMS IN GENERAL PRACTICE

MODERATOR:

Zigmond M. Lebensohn, M.D., Professor of Clinical Psychiatry, Georgetown University School of Medicine

PANELISTS: Drs. Goshen, Gardner and Terhune

12:00 RECESS FOR LUNCHEON

WEDNESDAY, NOVEMBER 26—AFTERNOON SESSION

James W. Watts, M.D., *Presiding*

President, The Medical Society of the District of Columbia

CLINICO-PATHOLOGIC CONFERENCE

2:00 INTRODUCTION

Thomas M. Peery, M.D. *Moderator*

Professor of Pathology, George Washington University School of Medicine

2:10 CLINICAL DISCUSSION

H. Marvin Pollard, M.D.

Professor of Internal Medicine, University of Michigan School of Medicine; Secretary, American Gastroenterological Association

PATHOLOGIC DISCUSSION: **A. James French, M.D.,** Professor and Chairman of the Deparment of Pathology, University of Michigan School of Medicine

4:15 ADJOURNMENT

Dr. Pollard

The Scientific Exhibit

The Scientific Exhibit will be on display in the South American Room, the Capital Terrace and in Foyer 3 of the Hotel Statler. Below is a list of the exhibits and the sponsors:

SOUTH AMERICAN ROOM

Titles	*Exhibitors*
Alcoholism . . . A Basic Approach to Treatment	Leon A. Greenberg, Ph.D., Laboratory of Applied Biodynamics, Yale University
A New Approach to the Management of the Agitated Child	Jack Kleh, M.D., Wilfred Ehrmantraut, M.D., and Joseph F. Fazekas, M.D., with technical assistance of Marie Negron and drawings by David Komuro
Diagnosis Please! (Presents 6 Diagnostic Problems in Which Mental Retardation Is Prominent)	Francis M. Mastrota, M.D., National Institutes of Health, and E. J. Boylen, M.D., Children's Center
Experience with Artificial Kidneys	George E. Schreiner, M.D , John F. Maher, M.D., and Julien Marc-Aurele, M.D., Renal Service, Georgetown University Hospital
Foreign Bodies in Air and Food Passages	George William Ware, M.D., Joseph M. LoPresti, M.D., and Isidore Lattman, M.D.
Hemadsorption Viruses in Childhood Respiratory Disease	Robert H. Parrott, M.D., Research Foundation of Children's Hospital and National Institutes of Health
Malignant Tumors of the Maxillary Sinus	William M. Trible, M.D.
Medical Emergency and/or Disaster Service of D.C.	James E. Chapman, M.D., and Edwin C. Mitchell, M.D.
Ocular Complications of Diabetes Mellitus	Ronald A. Cox, M.D., for Department of Ophthalmology, George Washington University School of Medicine
Pathology of Diabetes	DeWitt E. DeLawter, M.D., Morris H. Rosenberg, M.D., Samuel D. Loube, M.D., Aaron G. Saidman, M.D., James M. Moss, M.D., and Alvin E. Parrish, M.D.
Radioisotope Studies of the Gastrointestinal Tract	Department of the Navy (Captain Robert V. Schultz, M.C., U.S.N., Head, Audio Visual Training Section)
Respiratory Resuscitation	United States Army; Peter Safar, M.D., Washington; James O. Elam, M.D., and David G. Greene, M.D., Buffalo, N. Y.; and Francis Chang, M.D., Baltimore
Subtotal Cystectomy and Bladder Regeneration in Treatment of Bladder Cancer	Roger Baker, M.D., Timothy Kelly, M.D., Charles Putnam, M.D., and Timothy Tehan, M.D.
The Irritable Eye	William B. Glew, M.D.
The Prophylactic Use of Anticoagulant Therapy in Cerebral Vascular Disease	Jack Kleh, M.D., and Joseph F. Fazekas, M.D., with technical assistance of Eugenia Roby and Harold Mitchell
Uncommon Intra-abdominal Cysts	Henry H. Balch, M.D.
Varicose Veins	Charles A. Hufnagel, M.D., Howard S. Madigan, M.D., James McAlindon, M.D., and Aladdin Vardar, M.D.
X-Ray Pelvimetry with Reduction of Radiation Exposure	Edward D. Soma, M.D.

FOYER NO. 3

Titles	*Exhibitors*
A Simple Marsupialization Technic for Treatment of Pilonidal Sinuses (an Outpatient Procedure)	Daniel J. Abramson, M.D., and Captain Latimer H. Booth, M.C., U.S.A., Walter Reed Army Hospital
Glaucoma	Section on Ophthalmology, D. C. Medical Society; and the Prevention of Blindness Society of Metropolitan Washington
Physiological Measurements from Earth Orbiting Satellites	Department of the Navy (Captain Robert V. Schultz, M.C., U.S.N., Head, Audio Visual Training Section)
Studies of Cancer Cells in Circulating Blood	Richard A. Malmgren, M.D., John F. Potter, M.D., John C. Pruitt, M.D., Albert W. Hilberg, M.D., and Raymond F. Kaiser, M.D.

CAPITAL TERRACE

Titles	*Exhibitors*
Highlights of a Decade of Progress in Health	Mr. Claude G. Inman, Chief, Visual Aids Section, Pan American Sanitary Bureau
Traveling O'er the Seven Seas—The Role of the Family M.D.	H. van Zile Hyde, M.D., Division of International Health, and Byron Olson, M.D., Division of Foreign Quarantine, U. S. Public Health Service, and Alfred F. Wardell, A.B., Department of Commerce

Motion Pictures

The Committee on Motion Picture Exhibit has reviewed literally dozens of film catalogues in an effort to obtain the best scientific films for showing during the Assembly. A special feature of this year's program will be "The Man Who Didn't Walk," the third in a series of films on doctor and lawyer relations. "The Doctor Defendant" and "The Medical Witness," the other films produced by the Wm. S. Merrell Company in coöperation with the American Medical Association and the American Bar Association, will also be included in the program. The official program will contain a list of the films and when they will be shown. The motion pictures will be seen in the New York Room, 9:00 a.m. to 5:00 p.m. daily.

Registration

As in the past, members of the Medical Society may register prior to the opening of the Assembly at the Society's Executive Offices in the Medical Society Building, 1718 M Street, N.W., on Thursday and Friday, November 20 and 21, between 9:00 a.m. and 4:45 p.m. The Registration Section at the Hotel Statler, located in the Federal Room, will open on November 24 at 8:30 a.m. Visiting physicians and Society members not previously registered may register and secure badges in the Registration Section. A cordial invitation to attend the Assembly is extended to medical officers of the Army, Navy, Air Force and Public Health Service, physicians employed by the Veterans Administration and other Governmental agencies, and members of the American Academy of General Practice. Invited, too, are residents, interns, senior medical students, dentists, pharmacists, nurses, and technicians. *There is no registration fee.*

Buffet Supper, Reception, and Luncheons

Members planning to attend the Medical Society Luncheon on the opening day of the ASSEMBLY, Monday, November 24, must register and secure their tickets at the Society's Executive Offices on Thursday or Friday, November 20 and 21. Each Active and Life member is entitled to *one ticket without charge as long as they last.* Associate and Affiliate members and nonmembers of the Society may purchase luncheon tickets at a cost of $3.75 each.

Tickets for luncheons given by the Georgetown University Medical Alumni and George Washington University Medical Society (see Calendar of Events) may be obtained at the Medical Society's Executive Offices on November 20 and 21, or following the opening of the ASSEMBLY in the Registration Section.

There will be a Benefit Buffet Supper on Monday evening, November 24, at 7:30 p.m., preceded by a Reception (Cocktails) at 6:30 p.m. Hosts at the Reception will be Peoples Drug Stores. There will be dancing and music by Devron's Orchestra.

Net proceeds from the Benefit Supper will go to the Woman's Auxiliary Nursing Fund. The Auxiliary has arranged for attractive door prizes.

Annual Business Meeting

In accordance with the action of the Medical Society at its meeting on January 29, 1958, the organization year has been changed from a fiscal to a calendar basis. The Constitution and By-laws now provides that both the ANNUAL SCIENTIFIC ASSEMBLY and the Annual Business Meeting shall be held in November. Previously the ASSEMBLY had been held in October, the Annual Business Meeting in May.

The Annual Business Meeting will now precede the ASSEMBLY, it being scheduled to be held in the Medical Society's auditorium at 1718 M Street, N.W., on Sunday, November 23, 1958, at 5:00 p.m., the day preceding the opening of the ASSEMBLY. At the conclusion of this meeting a buffet supper will be served in the Library.

The agenda will consist of a brief statement by the President, a report by the Chairman of the Executive Board, consideration of both old and new business, and the nomination and election of officers for 1959. Annual reports will be found in this issue of the MEDICAL ANNALS. These will be voted on at the Annual Business Meeting.

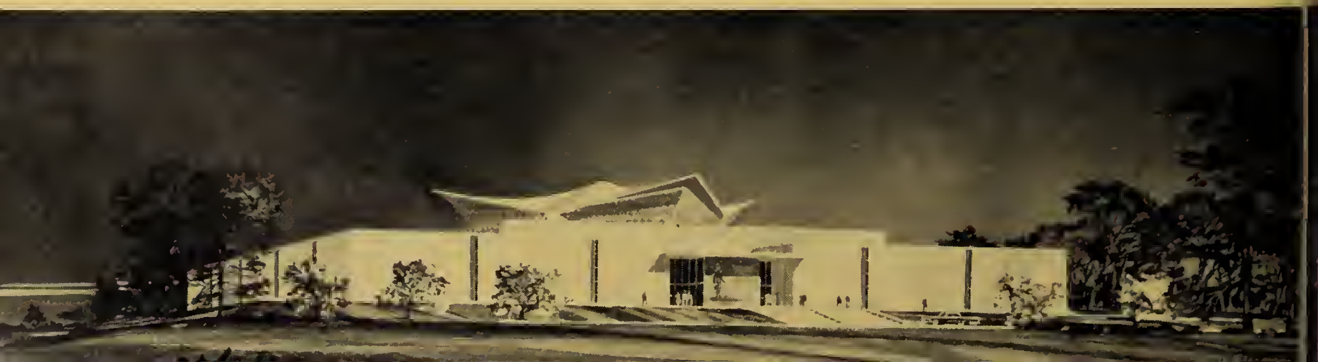
An agenda setting forth business to be transacted at the Annual Business Meeting will be sent to the membership well in advance.

Dinner for Doctors' Office Staffs

This dinner is sponsored by the Medical Society's Committee on Public Information and Education with the coöperation of Medical Service of the District of Columbia and is one of the most popular and well attended social events during the ASSEMBLY.

Included in the invitation to the dinner are doctors' secretaries, assistants, nurses, technicians, and receptionists. As in the past several years, the dinner will be held in the Presidential Ballroom, Hotel Statler, on Tuesday, November 25, at 7:00 p.m.

New Building for National Library of Medicine as Planned by the Architects



Calendar of Events

All Meetings at the Hotel Statler

MONDAY, NOVEMBER 24, 1958

8:30 A.M. Registration—Federal Room

9:00 A.M. Scientific Exhibits open for inspection in South American Room and Foyer 3

9:30 A.M. Address of Welcome: **James Winston Watts, M.D.,** President, The Medical Society of the District of Columbia

9:35 A.M.-12:15 P.M. Scientific Program*

12:30 P.M.-2:00 P.M. Medical Society Luncheon—Presidential Ballroom

Awards Ceremony:

Presentation of Certificate for Meritorious Service to DONALD STUBBS, M.D., President, Medical Service of the District of Columbia

Presentation of John Benjamin Nichols Award to MRS. HAROLD N. MARSH, Washington, D. C.

SPEAKER: **George Bugbee,** President, Health Information Foundation, New York

SUBJECT: "What Prepaid Medicine Means to Physicians"

Mr. Bugbee

2:20 P.M.-4:45 P.M. Scientific Program

6:30 P.M. Reception (cocktails)—Presidential Ballroom

Hosts: PEOPLES DRUG STORES

7:30 P.M. Benefit Buffet Supper—Presidential Ballroom

Dancing and music by DEVRON (courtesy of BURTON, PARSONS & COMPANY, Washington, D. C.)

DOOR PRIZES

Net proceeds to the Woman's Auxiliary Nursing Fund

TUESDAY, NOVEMBER 25, 1958

9:00 A.M. Registration—Federal Room

9:30 A.M.-12:00 Noon Scientific Program (Presidential Ballroom and Pan American Room)

12:30 P.M.-2:00 P.M. George Washington University Medical Society Luncheon—Presidential Ballroom

SPEAKER: **Dean F. Smiley, M.D.,** Executive Director, Educational Council for Foreign Medical Graduates, Evanston, Ill.

SUBJECT: "The New Program for Certifying Foreign Medical Graduates"

2:05 P.M.-4:30 P.M. Scientific Program

7:00 P.M. Sixth Annual Dinner for Doctors' Office Staffs, featuring "Making Blue Shield Work"

SPEAKER: **Richard C. Ackart, M.D.,** Executive Director, Virginia Medical Service Association; Director of National Blue Shield for the Fifth District

MODERATOR: **George Maksim, M.D.,** Chairman, Committee on Public Information and Education

PANEL MEMBERS:

Richard C. Ackart, M.D.

Donald Stubbs, M.D., President, Medical Service of D. C.

Mr. George B. McGovern, Executive Vice President and Secretary, Medical Service of D. C.

Music by EDDIE PIERCE'S TRIO and DOCTORS' DIXIELAND BAND

(*Continued on next page*)

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* The Scientific Program will be presented in the Presidential Ballroom and Pan American Room

WEDNESDAY, NOVEMBER 26, 1958

9:00 A.M.	Registration—Federal Room
9:40 A.M.-12:00 Noon	Scientific Program
12:30 P.M.-2:00 P.M.	Georgetown University Medical Alumni Luncheon—Presidential Ballroom Speaker: **Captain Norman Lee Barr, M.C., U.S.N.,** Director, Astronautical Division, Bureau of Medicine and Surgery, Department of the Navy Subject: "Medical Aspects of Man in Space"
2:00 P.M.-4:15 P.M.	Scientific Program

The Technical Exhibit

The Technical Exhibit will be on display in the Congressional and Federal Rooms and Foyer 2. A list of the exhibitors follows:

	Booth No.
Abbott Laboratories	16
A. S. Aloe Company	39
Arcum Pharmaceutical Corporation	33
Ayerst Laboratories	55
The Baker Laboratories, Inc.	30
Beth-Mont Surgical Supply Company	17
Beuchler's, Inc.	22
Borden's Prescription Products Division	21
Boyce and Lewis, Inc.	55B
Brayten Pharmaceutical Company	60
Burroughs Wellcome & Company, Inc.	36
Burton, Parsons & Company	59
Capital Credit Corporation	62
Ciba Pharmaceutical Products, Inc.	32
Davies, Rose & Company, Ltd.	27
Desitin Chemical Company	2
The Dietene Company	58
Doho Chemical Corporation	23
C. B. Fleet Company, Inc.	19
Geigy Pharmaceuticals	64
The Gibson Company	7
Charles C. Haskell & Company, Inc.	3
H. J. Heinz Company	57
Hoffman-La Roche, Inc.	56
Nelson Kloman Surgical Supply Company	70
Knoll Pharmaceutical Company	9
Eli Lilly and Company	26
J. B. Lippincott Company	37
Maltbie Laboratories	65
Maxwell and Tennyson	25
Mead Johnson and Company	24
Merck, Sharp & Dohme, Inc.	20
The Wm. S. Merrell Company	5
The National Drug Company	40
Hermien Nusbaum & Associates	48
Organon, Inc.	44
Ortho Pharmaceutical Corporation	28
Parke, Davis & Company	34
The E. L. Patch Company	12
Peoples Drug Stores, Inc.	35
Pet Milk Company	6
Pfizer Laboratories	61
Wm. P. Poythress & Company, Inc.	63
The Purdue Frederick Company	43
R. J. Reynolds Tobacco Company	4
Rhinopto Company	55A
A. H. Robins Company, Inc.	68
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OF THE DISTRICT OF COLUMBIA

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Editorials

DOCTOR, ARE YOU ON THE LIST?

How many charity dollars did you give to promoters of fake or unworthy charities this year?

Have you sent in your dollars upon receipt of an unordered ballpoint pen, a dollar and a quarter for an unordered necktie, a contribution in response to a phone call from an unknown solicitor, or a contribution to some person or organization who appealed to you through the mails?

These are just a few of the various approaches made by charity racketeers who in 1957 took over 180 million of the 6 billion dollars given to charity.

Examples of some of the more active operations conducted by promoters follow.

Take the case of a certain association operating nationally but with headquarters here in Washington. One of the officials of this group admitted at a hearing before a House Committee

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

that approximately $300,000 of $500,000 collected went for expenses. The chief fund-raiser for this charity received over $25,000 for his share. The primary purpose of this charity is for the care of children with a certain affliction yet only a little over $71,000 of the $500,000 collected was used for such purpose. Considerable publicity was given to this case in local papers in early July.

The chief fund-raiser of the aforementioned organization is also connected in an official capacity with a so-called veterans organization operating out of Washington. It was admitted in the early stages of their operation that over $900,000 would be needed to cover expenses before any veterans could receive benefits. Congress has investigated this organization too and found improprieties.

Out of New York and into Washington come appeals for help to support or maintain a Girls' Camp, a Boys' Camp, and a Seeing Eye Dog project. These are 3 of 5 operations all conducted by one family—a man, his wife and son. From the best information available we learn that very few girls or boys get to go to camp and that no dog goes to any blind person without being paid for. The family "take" from these operations is estimated at about $75,000 per year. You have probably contributed.

We have had and will continue to have what we call "boiler room" operations. These are conducted through mass telephone solicitations. A group of 5 to 10 people will operate from one room. They call no specific class of people, just use the phone book and make one call after another as the names appear. This type of operation has 3 key subjects—the promoter, of course, the solicitors or phone men and women, and the collectors or pick-up people.

When a given call results in a contribution the caller and the pick-up man each gets a cut and the promoter takes the rest except for some small amount, say 20 to 30 per cent, which goes to the purported charity. Sometimes because of failure to gross expenses, charity gets nothing. Frequently "boiler room" operations involve the sale of tickets for a circus, rodeo or some other type of activity where admission is gained through tickets. A benefit for children is the usual bait and the collector will often volunteer to give the tickets to some needy child and then the same tickets are sold again. The tickets for these events are serially numbered, and when the same ticket is sold several times but not delivered to purchaser, the benefiting charity, if there be such, is accounted to for only one sale.

Public Law 85-87, known as the "District of Columbia Charitable Solicitation Act," was approved July 10, 1957, and it is my feeling that the application of this law will do much to eliminate many of the undesirable so-called charities heretofore active in our city. Under this law charitable organizations are required to register and be licensed, and all solicitors must carry identification cards. If an organization, or person, cannot qualify under the law and is refused a license and later found guilty of solicitation or violating any provision of the Act, the persons involved are punishable by a fine of not more than $500, or by imprisonment of not more than 60 days, or by both such fine and imprisonment.

Now for some advice or instructions regarding the handling of solicitations for your charity dollars.

In the case of unordered merchandise, such as ballpoint pens, neckties, wallets, Christmas Cards, etc., that you receive through the mail, you are not obligated to keep and pay for them because you did not order them. You are not obligated to return to sender unless postage and wrapping materials for such return are furnished. If the sender does not call or send for the merchandise within 30 days, you may dispose of it, but do not use it. If you use an article, that is comparable to acceptance and consequently you should pay for same.

In the case of solicitors who come to your door, either office or home, ask for credentials and a financial report of the represented charity showing how much is collected and how it is disbursed. You are entitled to this information, and any organization or solicitor who cannot or is unwilling to furnish it should not receive a contribution from you.

If you are asked to contribute to an organization of which you have not heard and consequently do not know of its standing and purpose, call the Better Business Bureau for a report. We make no charge for our services.

WE CAN SERVE YOU AND SAVE YOU

Leland S. McCarthy

Managing Director, Better Business Bureau of Metropolitan Washington

THE DIABETES DETECTION AND EDUCATION PROGRAM

For 10 years the Diabetes Association of the District of Columbia has sponsored a Diabetes Week in the Metropolitan Area with undetermined success. Repeated efforts and statistical studies have been conducted to determine the value of such programs. Sometimes these "special disease weeks" are largely publicity for the fund drive that accompanies it or follows shortly thereafter. Fortunately, for the public, Diabetes Week was never accompanied by a fund drive, although contributions were never refused.

About 10 test units of one kind or another are given out for each urine test tabulated from the general public. Such a collection rate is uneconomical and discouraging to the persons conducting the program. When the 1957 statistics were tabulated from 1 week of concentrated diabetes detection, 8 new persons were found to have diabetes. This required extensive follow-up of glucose tolerance tests or postprandial blood sugar confirmation of the urine findings.

Based on the population of Washington and the assumption that 2 per cent of the population are diabetic, it can be estimated that 10 new diabetics can be recognized in any average week. Finding only 8 during detection week emphasizes the folly of a diabetes detection drive.

Nationwide "diabetes detection" is gradually becoming combined diabetes detection and education, and it would seem logical to eventually become "diabetes education." The Medical Council of the Washington Metropolitan Area is the group to decide the future of such programs.

This year the Eleventh Annual Diabetes Program will not be limited to one week in November but will extend over the year and will primarily be an educational program for hospital staff meetings, local medical groups, physicians, and lay organizations requesting assistance or information.

Any organization or group wishing to conduct a "detection program" will be assisted in such a project, but the initiative will have to come from the organization itself.

Inquiries for diabetes information and detection on an individual basis will be channeled to the family doctor. The private physician's office should be the detection and education center for all diseases. Unfortunately, this very important link in the chain of good health and preventive medicine is often lost in the "mass free programs" which are the craze.

If each physician will test his patients at least once each year for glycosuria by examining a postprandial urine specimen, few unsuspected diabetics will remain undiagnosed. The remaining few diabetics that cannot be detected by urine examination because of "high renal threshold" can be detected by postprandial blood sugar determinations. This test should be done whenever the physician suspects diabetes to be present. It is indicated in the older age group and particularly when there is a family history of diabetes mellitus.

Let us make all physicians' offices detection and education centers for diabetes and other diseases on a year-round basis. If a physician practices a specialty not including diagnostic facilities, let us ask each of our patients to have a family physician for his detection and education needs.

DeWitt E. DeLawter, M.D.
President, Diabetes Association of the District of Columbia

PUBLIC EDUCATION AND CANCER CONTROL

History credits Galen, who lived in the second century A.D., with the statement that "The only hope for the patient with cancer lies in the early diagnosis." It remained for Papanicolaou in 1943, 1,800 years later, to make this a working concept. The introduction of exfoliative cytology has made possible the diagnosis of cancer of the uterine cervix in its preinvasive phase and has widened the horizon of hope for complete cure.

In seeking to broaden the use of the smear test and to motivate women to adopt the habit of a complete health checkup at least once a year, the American Cancer Society in 1957 released the film "Time and Two Women" as a part of a broad cancer education program in communities where technical facilities are available for interpreting vaginal smears. Most physicians in the Metropolitan Area have seen the film.

The film alerts women to the urgency of early detection of uterine cancer and explains the cancer cell examination (the "Pap" smear). It is narrated by Dr. Joe V. Meigs of Boston, who tells the stories of two women who had cancer of the uterus, one of whom ignored warning signals and saw her doctor too late, and the other whose early cervical cancer was detected in the course of a periodic checkup. Growth of cancer is shown by animated diagrams. Photomicrographs of cervical smears used in the film were personally selected by Dr. George N. Papanicolaou. Details of the routine examination are explained, and it is emphasized that the patient experiences no discomfort during the procedure. The film concludes with an appeal to women to go to their family physicians once a year for a pelvic examination even though they have no symptoms.

The local Division of the American Cancer Society considers this film as a part of both professional and community education. More than 7,000 women have seen the film shown in Government agencies, business firms, and women's organization meetings since its November release in this area. Physician volunteer speakers have attended these showings to present pertinent medical aspects and to answer questions from the audience. In coöperation with the Cancer Control Committee of the Medical Society, the education committee of the local Division plans to give special emphasis and promotion to showing this film to women's groups in the coming months.

In introducing the film to the American Medical Association, Dr. David A. Wood, Past President of the American Cancer Society (1956–57) and of the College of American Pathologists (1952–55) wrote: "This is a remarkably interesting film. Used by the Society in communities where physicians and pathologists welcome it, it will help save lives. I am pleased that the Society has been able to produce such a frank and thoughtful film. One of the motivating factors in the formation of the Cancer Society in 1913 was the shocking loss of life from cancer of the uterus. In 1936 an intensive program of public education was begun. Since then, mortality rates from cancer have dropped 40 per cent. This is encouraging but thousands more lives could be saved each year. This film will help save them." (This film was described in the *Journal of the AMA*, October 12, 1957, page 728.)

Since the local Division was incorporated in 1946, the year-round public education program has reached thousands of persons "where they work and where they live." These efforts have received the endorsement and support of the medical profession with the knowledge that persons have been alerted to factual information on this major health problem and have been motivated to seek medical attention in time in an increasing number each year. This coöperative relationship in the community can and will bring about a better standard of health on all levels, and more lives will be saved.

Preliminary to the release of the film, the District of Columbia Medical Society, in an effort to ascertain the number of physicians who employed the "Pap" smear, circularized a questionnaire among some 600 members of the Society. Of this number, 190 affirmed the use of the smear test. While these figures are gratifying, they fall far short of the goal to make every physician's office a "cancer detection center." Since most patients are first seen by their local family physician, it is most important that all general practitioners be taught the use and value of the smear test in the detection of early cervical cancer. It is within the grasp of the medical profession today to make cancer of the cervix a completely curable disease. This can be accomplished through educating the physicians as well as the patients to the value of the complete periodic health examination.

With the emphasis given to alerting more women to their personal responsibility in the problem of uterine cancer through programs featuring "Time and Two Women," we can anticipate even a more hopeful picture in local statistics on this site. Local physicians are invited to participate in these programs. Arrangements to preview the film may be made by calling the Cancer Society at Executive 3-3690. Brochures and informational pamphlets on the subject are also available upon request. Questions on the program are invited.

This Committee welcomes the information that the local Cancer Society is giving special attention to this problem in the coming months. Most physicians will whole-heartedly support this effort in public education "to save lives." The promise of accomplishment is at hand.

J. Keith Cromer, M.D.
Chairman, Committee on Cancer Control

HISTORY REPEATS ITSELF

In the old preanesthetic days, the best surgeons were the most speedy ones because rapidity reduced pain and shock. With the introduction of anesthesia came the deliberate surgeon who caused shock and death by pulling and tearing tissues because the patient could not feel it, until the great Crile of Cleveland called attention to the value of cutting rather than tearing and gentleness rather than roughness in handling the tissues of the unconscious patient. Anesthesia allowed enough time to increase the number of "puttering" surgeons who were undecided as to whether they would do this or that, as the clock ticked away valuable time. Today the average patient may expect respectful and gentle treatment of his tissues and speed within safe limits during his operation. Shock is usually the result of the hospital bill after convalescence.

A definition of a satisfactory after-dinner speaker is "one who has something interesting to say, says it and sits down." This could be paraphrased for the surgeon. He should "have in mind what he intends to do, do it and complete the operation." (This does not preclude exploration of neighboring structures to insure their integrity.)

The same mistake of too much dependence on anesthesia is being made by some surgeons with regard to the wonder drugs which are not yet fully understood as to the rapid development of immunity to them or as to their ultimate effect on the patients. Caution should be emphasized as to the necessity for careful observance of the rules for the preservation of asepsis, because of too much dependence upon the power of the wonder drugs.

There is the same need for cleanliness of the surgeon's hands, the instruments, the operating room and the patient's skin. Rubber gloves must not be discarded for office surgical procedures, and the needles used in parenteral medication should be carefully sterilized before each injection. Besides our old friends the spirillum, the strep and the staph, infectious hepatitis may often be traced to the unsterilized hypodermic needle.

Pre- and postoperative penicillin is often effective in covering up breaches in technic, but it is still possible to visit the well too often. It is quite possible that the intractableness of the staphylococcus to the application of the wonder drugs, now in the limelight, may be a result of too much misplaced confidence which disregards the power of self-immunization.

Eternal vigilance is the price of liberty and also of the safety of patients.

JAMES A. GANNON, M.D.

In and Out of Focus

BY THE OBSERVER

Economic Problems Multiply (Cont.)

Readers of this column will recall that the increasing number of economic problems confronting the Society's Executive Board was reviewed in the September issue. It was reported that a special meeting of the Board had been scheduled to deal with the most urgent of these problems. This meeting was held on August 13, and the following actions were taken:

Special Contract for Low-income Subscribers to Medical Service. Dr. Donald Stubbs, President of Medical Service, had written the Society that the Service's present program was being priced out of the reach of persons of low and moderate income and that the medical profession, the Service, and the public shared "the responsibility for making low cost prepayment medical care" available to the low-income group.

The Board considered the various facets of this matter and voted to request Medical Service "to develop a program for the low-income group; that when details have been worked out the program be submitted to the Society for consideration."

Comprehensive Coverage for Members of the Transit Union. The Board reviewed correspondence dealing with conferences in which members of the Committee on Medical Care, Transit Union officials, AFL-CIO representatives, and officers of Medical Service had participated. Present at the Board meeting to discuss various aspects of the subjects taken up at these conferences were Dr. Stubbs, Mr. George B. McGovern, Executive Vice President of Medical Service, and Dr. C. Willard Camalier, Chairman of the Committee on Medical Care. Having heard their views, the Board considered recommendations of the Committee with respect to features which, in its opinion, should supplement the provisions of the Service's present Surgical-Medical Contract (see MEDICAL ANNALS, September 1958, page 479).

At the conclusion of its deliberations the Board voted to request Medical Service "to develop a comprehensive medical coverage program incorporating the eleven features listed in the recommendations of the Committee on Medical Care including the provision that there be no income limit; further, that when the details have been worked out the program be submitted to the Society for consideration."

It will be noted that no reference is made in this motion to the Transit Union, it being the Board's opinion that any program adopted should be made available to any other like group.

The Board also voted "that the Committee on Medical Care be requested to develop a relative value scale for the District and to establish unit values for various income levels."

A word of explanation here would seem in order. The "relative value scale" is based on unit points, the unit being an office visit. For example, if the office visit is $5.00, cost of an appendectomy would be on a relative value basis. Such a basis for payment of medical services has been developed and is in use in California and Kansas.

Medical Fees under Major Medical Coverage Program. This was one of the most difficult problems confronting the Board. Complaints had been received by the Society, from both Medical Service and various insurance companies, that fees in specific instances were exorbitant. The Society's opinion with respect to them was solicited.

The Board voted "that Medical Service be notified that adoption of a relative value scale by the Society, if used by the Service as a guide, would help solve the fee problem with respect to the Major Medical program; that modification of its Major Medical Contract to provide for control of fees was indicated; and finally, that retroactive action by the Society with regard to fees charged Major Medical subscribers was, in its opinion, not justified."

Obviously, the above proposals cannot be brought before the Society for its consideration until the details have been worked out. At that time the Executive Board is most anxious that every opportunity for full discussion be afforded members before final action is taken.

Abbreviated Medicare Program

As members were informed in a communication sent to them some weeks ago by the Executive Board, the Medicare program has been drastically curtailed. In fact, it is now certain that in the Washington area all but a very few dependents of personnel in the uniformed forces will be cared for in nearby military institutions unless Congress, in the next session, provides additional funds.

As scheduled, negotiations between representatives of the Society and the Department of Defense got under way on July 1, 1958. They proved to be lengthy and time-consuming. After some 4 days, no agreement having been reached, the Society's negotiators were discouraged and tempted to "throw in the sponge." They did not see that any other course was possible in view of the Society's instructions. The Department's representatives were adamant, pointing out that several items in the fee schedule were out of line. In fact, they said there were a number of items in the old schedule which were too high to be currently acceptable.

Not until toward the end of the negotiations was it learned that the average income of sponsors of beneficaries under the Dependents' Medical Care Program in the Washington area was much less than had been thought. In a communication received by President Watts, Colonel Earl C. Lowry, M.C., Professional Director, ODMC, wrote:

> "We have just reviewed the cases in the District of Columbia and adjacent counties from 19 February 1958 through 13 June 1958. It appears that the average income of the sponsor of patients treated under the Program is $4,330. This is in accordance with the recent pay increase which went into effect on 1 June 1958."

As the above income was well below the average in the District, the Society's negotiators now felt justified in modifying their stand. However, they decided, as a precautionary measure, to invite several members of the Society, influential in the various specialties concerned with the fees in question, to meet with the negotiators of the Department of Defense. Without exception, they agreed with Department representatives' proposal with respect to the fees in question. In view of their reaction the Society's negotiators recommended to the Executive Board that an agreement be entered into with the Department of Defense, a recommendation in which the Board concurred. The Board then authorized officers of the Society to sign the proffered agreement with the Department.

All this effort was largely nullified at a conference scheduled by the Department of Defense held in Washington on August 8, 1958, to which representatives of state medical societies, the American Medical Association, the American Hospital Association, and insurance carriers were invited. The purpose of the conference was to inform those present of necessary revisions in the Medicare program. It was learned that Congress had determined to reduce the cost of the program by (1) using military hospitals to the optimum and (2) reducing appropriations.

This, as said in the beginning, largely spelled finis to the Medicare program in the District where private physicians are concerned. Congress may be prevailed upon to provide the funds required to restore medical care by civilian physicians, but at the time this is written there are no indications that justify optimism on this score.

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Is Suit Justified?

One can understand the indignation of a physician who, having rendered conscientious and competent service, is faced with the refusal of a patient to pay a fair bill. More often than not such ingratitude moves the physician to take steps to enforce payment of his bill, perhaps through the medium of a collection agency. If this fails, he may seek redress through the courts.

Physicians are not in agreement as to the wisdom of entering suit to obtain payment for their services. A number are of the opinion that more is to be lost than gained by going into court. They take the view of Dr. Walter C. Alvarez, who, a number of years ago, said that he had long since come to the conclusion that it was far better to come to some agreement with a patient even if it meant cancelling a charge. Although at one time he used to become much upset when a patient questioned a fee for his services, he decided that, for his "peace of mind," he would make another approach. Following this decision he made it his practice, whenever a patient complained about a fee, to tell him that, in his opinion, it was fair; however, he could pay what he wished to and it would be accepted. More often than not, Dr. Alvarez said, the patient paid the bill in full.

Many physicians would not go along with this practice. They feel that they are entitled to their fee, and the patient, if he is able, should be made to pay a reasonable charge. Rather than charge the account off their books, which is unwise from the standpoint of possibly inspiring a malpractice suit, they use whatever methods are required to obtain payment.

In your Observer's opinion, circumstances will dictate the lengths to which a doctor should go to collect his bill. Often both the physician and the patient are at fault when differences arise over charges. First of all, the physician is obligated, when he knows that a sizable expenditure for medical services is involved, to tell the patient frankly in advance what the probable costs will be. This advice has been given physicians repeatedly, but the practice has not been widely adopted. Where the physician fails to follow this procedure he still has an out with a patient who is dissatisfied with his charges. He should make it a point to explain to the patient the procedure involved and why, in his opinion, the charges were justified.

One of the leading plaintiff attorneys in the San Francisco Bay area, according to the publication *The Doctor & the Law* (August 1958), is spending almost all his time representing claimants in malpractice situations. He estimates that about 50 per cent of his clients who decide to sue physicians for malpractice do so because they believe that they have been charged an unreasonable fee. Where the attorney is convinced there has been no malpractice, he talks the client out of his decision to sue and is successful in 9 out of 10 cases.

This attorney feels that the doctors "are lax in explaining to their patients the difficulties of their particular case and in pointing out some of the serious results which might occur even in the absence of negligence." In other words, he believes that doctors should be franker with their patients both before and after the services have been performed. There would then be less difficulty over bills.

When a patient cannot be convinced, this attorney thinks that the physician should bill him a reasonable amount for his services, and, if the patient still refuses to pay, "forget the whole thing." To do otherwise, he says, is to invite malpractice suits.

Whether one agrees with this view or not, one thing is certain. Instituting a suit for a bill for medical services is not to be taken lightly. Certainly the decision should not be made in the heat of anger but should be arrived at after weighing the factors involved thoughtfully and, to the extent possible, objectively.

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The Ice Age

Good housekeeping at the Medical Society Building demands that periodically the accumulation of printed matter, i.e., valueless books, dispensable medical journals, pamphlets, catalogues, and so on, gathering dust on the third floor, be disposed of. Last month, during housecleaning, each item was examined, as usual, to be certain that nothing of value was thrown away.

On this occasion your Observer discovered 4 pamphlets of historical interest. One contained an address given in 1895 by Dr. Samuel C. Busey, then President of the Society; another a report of a special committee of the Society on Homeopaths (1871); and still another, an appreciation of Dr. Louis Mackall III (1930). The fourth pamphlet especially aroused your Observer's curiosity. It was entitled "Report of the Committee of the Medical Society on the Ice Dealers' Combination" (1893).

It appears that ice dealers in the District at that time entered into an agreement to suspend delivery of ice to retail consumers on Sundays during the months of June, July, August and September. The companies avowedly took this action because their employees wanted and were entitled to "a day for rest."

The Medical Society's committee investigating the matter expressed deep concern. Suspension of "ice delivery on the Sabbath-day during the period named, without adequate arrangements for the convenient and speedy obtainment of supplies when and by whom needed," they said, "will occasion serious inconvenience to very many housekeepers; be detrimental to the health of that large class of residents who are compelled to remain in the city during the summer months; will prolong the duration and intensify the suffering of many cases of sickness; and will increase the number and mortality of certain classes of disease."

The committee referred to the "sweltering and exhausting heat" which continues without abatement in the summer, giving little relief during sleeping hours. It spoke of "the insalubrity of this locality during these periods of abnormally high temperatures and blazing sunshine" as a contributing factor to the prevalence of gastrointestinal disturbances. These, it was said, were particularly serious among young children, the mortality being high in the group under 5 years of age.

Ice, the committee said, is "an indispensable necessity in the sanitation of person, health, foods, drinks, and sickness. . . . As yet, there has been no apparatus, procedure, or medicament devised as an available substitute. When—we hope in the near future—every dwelling may be supplied with a hygienic ice-producing appliance, we may bid defiance to ice company combinations, and throttle at the outset every arbitrary regulation and method to restrain and suspend this form of sanitation of foods, drinks, and sickness."

The committee made a strong plea for the underprivileged because the "rich and the affluent will, as they usually do, buy themselves out of such domestic and housekeeping inconveniences, annoyances, and threatened deprivation of the Sunday supply of ice. . . ."

> "The Sabbath-day," the report continues, "presents no conditions which exempt human beings from sickness. Disease has no respect for days of the week. Neither fever, nor pain, nor suffering of any kind, description, variety, or grade, ceases or intermits on Sunday to again renew itself on Monday. Babies are born, get sick and die, emergencies arise, accidents happen, and any and all the phenomena of disease may occur with equal intensity and suddenness on Sundays as on week-days."

The committee closed its report on this eloquent note:

> "The conduct of this combination is a painful illustration of the aphorism that 'man's inhumanity to man makes countless thousands mourn'; but there is another side to this melancholy picture. The benevolent impulses of the human heart have never yet failed of response to the necessities of the sick and suffering. Here and elsewhere, all over the civilized world, want, privation, sickness and suffering will command the attention and arouse the noblest impulses of Christian charity and benevolence. In this case no alms are needed. The power and will of popular opinion will suffice, and our Society appeals to this community with the utmost confidence for that support and coöperation which will break down a combination which seeks to magnify, aggravate, and intensify the privations of that large class of its citizens who, by reason of their dependence and circumstances in life, cannot successfully contest the arbitrary methods of an unrelenting monopoly."

The report was received by the Society, which adopted a resolution stating that "in this effort to secure the continuous daily delivery of ice to the retail consumers during the heated months of the year [the Society] invites the support and coöperation of the Commissioners of the District of Columbia, the Health Officer, the Local Press, the Sanitary League, and all other organizations and persons interested in the matter."

An examination of the minutes of the meetings for the remainder of the year (1893) does not disclose what, if any, success attended the Society's action. In fact, there is no further mention of the subject. One suspects, however, that in the face of the Committee's report and the Society's public appeal, the ice dealers' combine relented. The report serves to emphasize how far we are removed from the "ice age."

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". . . A Nation of Old Ladies . . ."

The 1950 census revealed that for the first time in this country there were more females than males. The "surplus," *The Journal of the American Medical Association*[1] states, is now approaching two million. This increase has been largely in the higher age group and, according to the *Journal*, suggests the prospect of our becoming "a nation of old ladies."

> "Expectation of life at birth is about 73 years for white females and only 67 years for white males," the *Journal* reports. "In 1940 the excess for females was only four years. Expectation of life at birth is a severely qualified forecast. Currently, 1,000 white girl babies born during the year would be expected to live a total of 73,000 years if their mortality during each successive year of life were the same as now prevails. Few demographers would care to predict that age-specific mortality rates will remain unchanged, even in the 21st century, until all of these 1,000 babies have died. Likewise, the statement that 1,000 white male babies can be expected to live a total of 67,000 years, or an average of 67 years, is based upon the continuation of current age-specific mortality rates during their entire lifetime."

Demographers are, of course, wise in the circumstances to qualify their forecasts. The fact remains, however, that for many years there has been an increasing disparity in life expectancy of males as compared to females, favoring the

(*Continued on page 562*)

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[1] J.A.M.A., 1958, **166,** 2184.

ANNUAL REPORT OF THE CHAIRMAN OF THE EXECUTIVE BOARD*

Among a number of amendments to the Constitution adopted by the Society at its Business Meeting on January 29, 1958 was one providing for the change of the organization year from a fiscal to a calendar basis. Prior to this year the administration would have changed on July 1. Now the officers elected at the Annual Business Meeting, November 23, 1958, will take their respective offices on January 1, 1959. As a result, this report covers a period of nearly 1½ years.

Hence, this report by the Chairman of the Board cannot be as detailed as it has been in the past. This is not done for the sake of change but to avoid repetition and to reduce the reading time.

All reports of special business meetings of the Society have been published from time to time in the MEDICAL ANNALS. Most actions of the Board not so publicized have been reported in communications directed to the Society's membership. This report, then, is primarily concerned with important matters with which the Society's membership is unfamiliar or those which because of their importance bear repetition.

Perhaps it should also be explained that failure to mention the activities of all committees of the Society in this report does not mean that they have not been busy or that the Board is unappreciative of their efforts. On the contrary, several of those omitted have made outstanding contributions. However, their activities have been publicized in one way or another and repetition would not be justified.

As members know, all activities of committees and their actions are reviewed by the Board, which approves or disapproves them. Where matters of general policy are concerned, the Board submits them to the Society with its recommendations.

Scientific Program. On a number of occasions older members have expressed their regret that frequent scientific meetings formerly held in the Society's building have been discontinued. During the past year an effort was made to remedy this situation. The Program Committee developed what was known as "Motion Picture Nights." Much time, effort, and money went into this project. However, the response was so disappointing it had to be abandoned. For the time being, therefore, the Society's scientific program will be limited to the ANNUAL SCIENTIFIC ASSEMBLY, which has a fine record of attendance, and the MIDWINTER SEMINAR, which has been successful.

It is my hope that efforts will be made to sponsor more scientific programs in such a manner as to attract satisfactory attendance.

Medicare Program. There is no point in reviewing here negotiations which have led to the Society's agreements with the Department of Defense for the care of dependents of personnel in uniformed forces for the reason that members of the Society have been kept well informed in regard to developments. It should be sufficient to mention that, in the Board's opinion, the Society is indebted to its negotiators, Drs. Ralph M. Caulk, C. Willard Camalier, Jr., and Edward W. Nicklas, for the manner in which they handled their part of the negotiations.

As stated in a communication addressed to the Society's membership on August 21, 1958, the negotiators had to deviate from the instructions of the Society when its contract with the Department was renegotiated in July. However, they did so only after consulting with a number of physicians in specialties directly concerned with the items about which there were differences of opinion.

Now that the Medicare program has all but ceased to exist in the District of Columbia, this matter is not so important. However, Congress may provide sufficient funds for the Medicare program with respect to participation of civilian physicians when the grass roots have been heard from. This, of course, remains to be seen.

Recodification of the Constitution and By-laws. It will be recalled that when the Society adopted numerous amendments to the Constitution and By-laws for the purpose of revamping its present program, it authorized recodification, i.e., that amendments for repealed provisions be incorporated in the body of the document. When this work was completed, it was explained, there would be no amendments to the Constitution and By-laws.

At the Board's request the Committee on Constitution and By-laws proceeded with the recodification. Dr. W. LeRoy Dunn, Chairman, reports that its task has now been completed. Certain minor changes were necessary which have not altered the purposes or intent of the original document as amended with one exception. The exception required an amendment which follows:

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* EDITOR'S NOTE: This report and the following reports of the Secretary and the Board of Credentials will be submitted for the approval of members of the Medical Society of the District of Columbia at its Annual Business Meeting, November 23, 1958.

AMENDMENT LI

Section 1. Section 3 of Amendment XXXVI is hereby repealed.

Section 2. The Cancer Morbidity Review Committee shall consist of 15 members, 5 of whom shall be appointed for 3 years, 5 for 2 years, and 5 for 1 year. At the expiration of their respective tenures subsequent members shall be appointed for a term of 3 years. The Executive Board may change the number of members of this committee.

Upon adoption of the above amendment printed copies of the recodified Constitution and By-laws will be made available to the membership.

The Cost of Remodeling 1710 M Street, N.W. At a Special Business Meeting of the Society on March 6, 1957, expenditure of the Society's funds, in an amount not to exceed $58,000.00 for the purpose of remodeling and restoring its property at 1710 M Street, N.W., was authorized. In addition to this authorization, officers of the Society were empowered to borrow additional funds, not to exceed $30,000.00, at the lowest interest rates possible, to complete the project.

The House Committee reported to the Society on November 27, 1957, that the expenditures were then in line with what was anticipated. However, subsequently it was found that, as often happens when old buildings are restored, there were unforeseen costs which now have raised the overall expenditure, as of September 16 to $95,431.96. Naturally, the Committee was disappointed that the cost could not have been kept within the limits of the expenditures authorized by the Society; however, the Board, which approved the additional expenditures, is certain that the membership will understand that every effort was made to do so.

The Board feels that the Society should be deeply appreciative of the tireless efforts of the Chairman of the Committee, Dr. W. Ross Morris, who has given generously of his time and abilities to this project.

Public Health Activities. It is not possible to record here all of the activities of the various committees in the public health field. Members have become familiar with the efforts of Dr. Clifton R. Gruver, Chairman, and members of the Committee on Public Health to improve the nursing home situation in the District. This long-time project is now well under way and the Board feels certain will eventually bring results beneficial to the whole community.

The Cancer Control Committee has been unusually active. Due to its efforts the Cancer Morbidity Review Committee has gotten off to a successful beginning. This Committee is pursuing its functions under the able direction of its Chairman, Dr. J. Keith Cromer, and with the assistance of a secretary paid by a grant from the District Division of the American Cancer Society.

Among the other committees devoting their attention to public health matters, the Subcommittee on Child Welfare, the Committee on Mental Health, and the Committee on Blood have been extremely active.

Council on Rehabilitation. The Council is unique in that it is the only body of its kind conducted by a medical society and financed by the Federal Government. During the past 2 years the Council has carried on an intensive study of the facilities of organizations providing rehabilitation services in the Washington Metropolitan Area. This is the final year it will devote to this activity. Thereafter it is hoped that its recommendations will be implemented either by private or public funds.

Its Chairman, Dr. Preston A. McLendon, has devoted an immense amount of his time and his unusual capabilities as a leader to the Council. He has had the valuable assistance of Miss Josephine Albrecht, Executive Secretary of the Council.

Medical Care of the Indigent in Voluntary Hospitals. Diligent efforts have been made in recent years by the Medical Advisory Committee to the D. C. Department of Public Health, of which Dr. William P. Herbst is Chairman, to obtain adequate funds for the care of indigent in Washington's voluntary hospitals. Although its endeavors have been rewarded with some success its goal has not been attained. However, there is evidence that more favorable consideration will be given to the Committee's urgent request in the not too distant future.

Prepayment Medical Care. A very important meeting of the Executive Board was held on August

13, 1958, at which time consideration was given to proposals advanced by the Society's Committee on Medical Care and Medical Service of the District of Columbia.

In a communication received by the Society from Dr. Donald Stubbs, President of Medical Service, he stated that increasing costs to subscribers to the Service's Surgical-Medical Contract was pricing it out of the range of the low-income group. The suggestion was made that consideration be given to the development of low-cost protection so that low-income persons could purchase the protection they need. After hearing the views of Dr. C. Willard Camalier, Chairman of the Committee on Medical Care, and officers of Medical Service, the Board voted:

"That Medical Service be requested to develop a program for the low-income group; that when the details have been worked out the program be submitted to the Society for further consideration."

Another program which had been a subject of discussion not only by the Committee on Medical Care but also in conferences in which members of the Committee, representatives of Medical Service, and Transit Union officials participated was the comprehensive prepayment coverage program for the Union's membership. The Union had under consideration establishment of a prepayment clinic plan; however, their leaders stated that they were open to proposals from Medical Service.

At its meeting on July 28, 1958 the Committee on Medical Care voted to recommend that a pilot program be developed by Medical Service for Transit Union members which would incorporate the following features not now in the Service's Surgical-Medical Contract:

1. Full coverage with respect to ancillary services
2. Inclusion of home and office surgery
3. Inclusion of medical care—first 3 days in the hospital
4. Inclusion of care of infants from day of birth
5. Inclusion of home or office visits, to be limited to 1 visit per day
6. Inclusion of examinations incidental to illness or accidents and periodic physical examinations
7. Medical care in short-term acute mental illness
8. Treatment for allergy and tuberculosis
9. Pre- and postnatal care in obstetrical cases
10. Unlimited consultations
11. Office administration of drugs by injection.

In addition to the above features the Committee agreed there should be no income limit for Union members; further, that a relative value scale with respect to physicians' fees should be developed such as now exists in California.

Again, the Board heard the views of Dr. Camalier and the officers of Medical Service. The Board then voted:

"That Medical Service be requested to develop a comprehensive medical coverage program incorporating the 11 features listed in the recommendations of the Committee on Medical Care, including the provision that there be no income limit; further, that when the details have been worked out the program be submitted to the Society for consideration"; also,

"That the Committee on Medical Care be requested to develop a relative value scale for the District and establish unit values for various income levels."

It will be noted that the Board did not request Medical Service to develop a comprehensive medical coverage program specifically for the Transit Union. It was the Board's opinion that such a program should be available to all similar groups.

A number of complaints had been received from insurance companies in regard to the fees charged by physicians under Major Medical Programs. Inquiries also have been directed to the Society by Medical Service with respect to fees in specific cases, the Society being requested to express its opinion as to whether they were "reasonable and customary" in the community. Under its Major Medical Program the Service is obligated to pay physicians' fees on this basis. The Service asked to be advised whether the fees charged in the specific cases referred to the Society could be so considered. The Board voted:

"That Medical Service be notified that adoption of a relative value scale by the Society if used by the Service as a guide will help solve the fee problem with respect to the Major Medical Program; that modification of its Major Medical Contract to provide for control of fees was indicated; and, finally, that retroactive action by the Society with regard to fees charged the Major Medical subscribers was, in its opinion, not justified."

As is plain from the above, all these matters will eventually have to be considered and voted upon by the Society. As soon as adequate data are available, they will be presented to the Society for full discussion and such action as it deems advisable.

Financial Reports. The Constitution and By-laws of the Society provides that the Chairman of the Executive Board shall not only inform the Society of matters considered by the Board and the disposition thereof during the year preceding the Annual Business Meeting but he shall submit for the approval of the Society the budget for the ensuing year, which budget shall be filed and shall become a part of the records of the Society.

Due to the change in the organization year from the fiscal to the calendar basis, this requirement cannot be carried out in the same manner as heretofore. Now that all reports are to be presented at the Annual Business Meeting and special meetings are called only for the purpose of considering specific emergency matters, financial reports will be submitted in November for the previous, completed calendar year.

Financial records of the Society are audited by Wayne Kendrick & Co. The audit takes place immediately after the first of the year. Obviously, therefore, a report for the current year cannot be made at the Annual Business Meeting in November.

The Board trusts that this will meet with the Society's approval.

Social Security Coverage for Physicians. As explained in a communication addressed to the Society by the Board under date of September 8, 1958 there was considerable sentiment in the meeting of the House of Delegates of the AMA in San Francisco for the participation of physicians in the Social Security program. Several resolutions relating to this matter were introduced, 3 of them requesting that a referendum be taken of the AMA membership. This was rejected because the House said it would "usurp the duties and prerogatives of the House of Delegates." However, it was suggested that a poll be taken by individual state medical societies so that delegates from their jurisdictions to the House would know definitely the wishes of the membership.

On authorization of the Executive Board a poll has been taken, the following question being asked: Do you favor physician participation in the Social Security program?

550 answered Yes
192 answered No

Miscellaneous Items. The Board is charged with the responsibility of selecting recipients of the John Benjamin Nichols Award, which goes to a layman or lay organization in the health field which has made outstanding contributions to the health of the community; the Certificate for Meritorious Service, which is presented to the member or members of the Society who have distinguished themselves in serving the profession and the community; and the Edward Young Davidson Award, for the best scientific paper published annually in the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA. This is one of the pleasant tasks of the Board. . . . There has been much discussion in recent months in regard to the proposed new Healing Arts Practice Act. No final conclusion had been reached when this report was written although opposition to the replacement of the present law is apparent. The Board will have something to say on this subject at the Annual Business Meeting. . . . The Medical Emergency Disaster Service developed by the Committee on Emergency Medical Service has attracted wide attention in the Metropolitan Area. The Chairman of the Committee has appeared before both the Montgomery County Medical Society and the Alexandria Medical Society as a result of their interest in the program. It is hoped by the Committee that the coöperation of these societies can be obtained. . . . During this year the Board learned that in February the Commissioners of the District of Columbia had ordered the reorganization of the Hill-Burton Advisory Council into a Hospital Advisory Council and that among the duties assigned to the reorganized Council was a review of all proposed regulations required of hospitals for their licensing. At the time this is written detailed instructions implementing the Commissioners' Order were being prepared. The recommendations of the Society's Committee on Hospital Regulations will be forwarded to the reorganized Hospital Advisory Council. The Board thanked Dr. Clayton B. Ethridge for the work of his Committee. . . . The Medical Council of the Washington Metropolitan Area has attracted wide attention because of the uniqueness and effectiveness of its program. The Board is pleased with the results of the Society's participation.

As for myself, I have served the Society in various capacities, including the presidency, for more than a quarter century. As has been the case with my associates who have had similar opportunities, I would not have foregone this experience. It has been a vital and important phase of my life.

In retiring as Chairman of the Executive Board, I will, for the first time in many years, not hold an elective office in the Society. However, I can assure you that my interest in the Society will continue and my services will be available to the extent that my professional responsibilities permit.

Respectfully submitted,
HERBERT P. RAMSEY, M.D.
Chairman, Executive Board

REPORT OF THE SECRETARY

It is the Secretary's hope that this report will attract wide reader interest so that more members will have a better understanding of what goes on in the Society's Executive Offices from an administrative standpoint.

Although the pattern of the Society's activities does not vary too much from year to year, changes are, nevertheless, taking place. The Secretary's report next year will reflect still greater changes because the reorganization voted by the Society will then be in full effect.

Scientific Program. The 26th ANNUAL SCIENTIFIC ASSEMBLY was, by any yardstick, a very successful meeting, although attendance was not as high as at some meetings in the past. There was obviously greater interest in the scientific program than in many years, because the meeting halls were consistently filled. In past years, when the registration was at its maximum, this was not always true.

Fourteen hundred physicians registered at the last ASSEMBLY, out of a total registration of 2,551.

Six to 8 months are necessary to complete plans for the ASSEMBLY. Much of this work is of an administrative nature, requiring the combined efforts of the Society's office staff.

The SIXTH MIDWINTER SEMINAR was well received, the average attendance being 175. The SEMINAR is now an established feature of the Society's program.

One of the experiments undertaken in the past year in an effort to attract more physicians to the Society's building was what was known as Motion Picture Nights. The Program Committee was highly optimistic about the reception that the Nights would receive. However, they were doomed to disappointment because the attendance, which was at first encouraging, dwindled until it was clear that the program did not warrant the time, effort, and money that were put into it.

There are different points of view in regard to the need for more Society-sponsored scientific programs. There is a serious question whether or not there is a need or demand for them. This is something that future program committees will have to determine.

Medical Annals. It must be apparent to readers that advertising in the MEDICAL ANNALS has reached an all-time high. The fact is that these are plush times for medical journals from an advertising standpoint. However, where the ANNALS is concerned, the increased advertising revenue is largely offset by increasing costs of publication. Nevertheless, the ANNALS has done well financially, it being remembered, however, that the Society underwrites a substantial part of the cost of its publication, $5.00 of each member's dues being allocated for this purpose.

As previously reported, the ANNALS is widely read by the medical profession throughout the country, especially by officers of medical societies.

At its Annual Meeting on January 14, 1957, the Editorial Board of the ANNALS voted to enlarge its editorial staff by requesting the District's medical schools and various Governmental medical institutions in the Metropolitan Area to designate representatives of their establishments as Consulting Editors. Most of them have done so, and in the short time in which they have served they have been most helpful in securing needed scientific material.

Medical Bureau. About all that needs to be said about the BUREAU has been stated in the Secretary's previous reports. However, it cannot be repeated too often that the BUREAU is one of the Society's most effective public relations media.

Telephone operators continue to be the bulwark of the BUREAU, for upon them rests the success or failure of this telephone service. They have proved time and again that they are a dedicated group who endeavor to render the best service of which they are capable.

The BUREAU began operation in December 1940 and has operated continuously, 24 hours a day, ever since without even one hour's interruption. Of course, that includes Saturdays, Sundays, and holidays.

An analysis of the calls handled by the Bureau in 1957 as compared to 1956 follows:

	1956	*1957*
Messages taken for physicians	209,834	228,907
Telephone calls to reach physicians	172,467	185,986
Emergency calls	4,990	4,943
Telephone calls to reach physicians for emergencies	5,477	5,965
Instructional calls from physicians	156,906	162,208
Referrals (names of three physicians)	31,656	28,283
	581,330	616,292

Medical Service of the District of Columbia. The Service continues to set the pace among prepayment plans in this country. It is now the first among all Blue Shield plans in the percentage of the population which subscribes.

On September 1, 1958, there were 688,268 participants enrolled in the Service as compared to 650,613 at the close of December 31, 1957.

On December 31, 1957, the total number of Participating Physicians was 2,079. The number has increased to 2,216 (all categories, i.e., physicians, dentists, and podiatrists) on September 1, 1958.

Income from subscribers, before operating expenses, on December 31, 1957, was $7,899,258.00. As of July 31, 1958, the estimated income from this source was $5,416,459.00, which would indicate that there would be considerable increase over the previous year by December 31, 1958. Operating expenses were running 8.3 per cent of income up to July 31, 1958, as compared to 9.4 per cent in 1957.

Medical Service has continued as the Society's fiscal agent in connection with the operation of the Medicare program.

Most members know that the Society's Secretary has also been Secretary of the Service. Recently he found it necessary to submit his resignation in this capacity to the Service's Board of Trustees, which accepted it on June 10, 1958. He had held this office since the Plan was organized in 1948. He will continue as an ex officio member of the Board of Trustees *without a vote.*

Group Hospitalization, Inc. On March 31, 1957—the last time the Secretary submitted his report in regard to enrollment—there were 1,173 subscribers to the Society's group enrolled in Group Hospitalization, Inc., as compared with an estimated 1,228 on September 1, 1958. Of these, 941 subscribe to the Preferred Contract and 287 to the Standard Contract.

Membership Luncheons. These were continued in the past year although they were fewer in number. Their purpose, as previously explained, is two-fold: to orient new members of the Medical Society with respect to its organization, history, how it functions and how financed, and, secondly, to afford the neophytes an opportunity for fraternization. The luncheons have been enthusiastically received by those who have participated.

The number of luncheons given depends upon how many members have been elected. Attendance is limited to 25. These luncheons have been resumed because there is now a backlog of elected members. They will be continued throughout the winter.

Membership. As the following figures show, the Society's membership has increased substantially in the past 10 years.

Membership on September 1	1948	1953	1958
Active	1,237	1,361	1,459
Life	81	71	57
Affiliate	0	14	34
Associate	268	417	557
Honorary	15	19	28
Resident-Interns	0	12	36
TOTAL	1,601	1,894	2,171

Miscellaneous Activities. As usual, in this portion of the report the Secretary reviews his "outside" activities.

On March 24, 1958, he addressed the Annual Meeting of the Pennsylvania Academy of General

Practice in Pittsburgh, Pennsylvania, on the subject, "The Third Party—Friend or Foe?"

He has continued as Professorial Lecturer on Medical Economics at Georgetown University School of Medicine. Topics discussed by him have been the following:

The Third Party in Medicine
Financial Considerations in Choosing a Career in Medicine
Economic Factors in Establishing and Conducting a Private Practice
Physician-Patient Financial Relationships
Partnerships and Group Practice
Professional Conduct

One of the organizations which has come into existence since the last Annual Business Meeting of the Society is the Medical Council of the Washington Metropolitan Area. It is made up of representatives of the District Medical Society and county medical societies in Virginia and Maryland within the Metropolitan Area. (See MEDICAL ANNALS, 1957, **26:** 190 and 384.) The Secretary of the Society was until recently Secretary of the Council and also helped in its organization. One of the projects sponsored by the Council in coöperation with the Wm. S. Merrell Company, of Cincinnati, Ohio, was an all-day Forum on Medical Economics. The subject discussed was "The Doctor and His Practice." Participating were authorities on the law, office administration, and estate planning. Approximately a thousand physicians were in attendance from many nearby states and the District of Columbia. The Secretary presided at the afternoon session.

Conclusion. Perhaps the most challenging problems before the Society in 1959 will be the proposed expansion of Medical Service of the District of Columbia to include a prepayment plan for the low-income group; the broadening of the Service's benefits to subscribers to the Surgical-Medical Contract; and the vexing situation with respect to physicians' fees which is inherent in major medical programs sponsored by both the Service and commercial insurance companies.

There are many administrative details involved in these matters in which the Secretary will have a part. He looks forward to it with keen anticipation, because the problems involved are in many ways the most challenging in several years. These are momentous times which require imagination, courage, and foresight. It is the Secretary's sincere hope that he can, to a modest degree, measure up to what is expected of him.

The Secretary considers it a privilege to have a part in the Society's activities in these stirring times. He wishes to acknowledge his indebtedness to the officers of the Society and to many members for their valuable assistance and for the consideration that they have always shown him. He also wishes to thank his loyal administrative staff for their tireless efforts.

Respectfully submitted,
THEODORE WIPRUD
Secretary-Treasurer

REPORT OF THE BOARD OF CREDENTIALS

The Board of Credentials is the only body within the Society, except the Executive Board, directly responsible to the Society. The recently recodified Constitution and By-laws provides that applications for membership shall be handled in the following manner:

> "Applications for membership shall be made in writing on a form provided by the Society, endorsed by three Active members of the Society, none of whom shall be a member of the Board of Credentials or the Executive Board, and sent to the Secretary, who shall present their names at a subsequent business meeting of the Society or send a list of their names in writing to Active and Life members of the Society. All applications shall then be submitted to the Board of Credentials, which shall inquire into the standing of each applicant. After the lapse of two months, within which members of the Society may register their approval or disapproval of any applicant, the Board of Credentials shall report in writing to the Executive Board, recommending the election of satisfactory applicants. . . ."

In carrying out its duties, the Board goes beyond the above requirements and interviews each applicant before recommending his election. Letters are also written to the medical societies which applicants have previously belonged to, or are members of, to ascertain their professional standing and membership status.

DECEASED MEMBERS OF THE MEDICAL SOCIETY

1957–1958

Adams, Ralston H.	(Associate)	February 17, 1958
Baggs, Albert N.	(Active)	May 1, 1958
Breeding, Earl G.	(Active)	January 16, 1958
Burtnick, Lester L.	(Active)	December 16, 1957
Chase, William W.	(Active)	May 16, 1957
Cronin, John W.	(Associate)	March 26, 1958
Davidson, Edward Y.	(Life)	May 22, 1958
Dollman, Mazarin C.	(Active)	May 13, 1958
Evans, Andrew B.	(Active)	April 24, 1957
Fromm-Reichmann, Frieda	(Associate)	April 28, 1957
Gantz, Frank E.	(Active)	May 23, 1958
Greene, Clarence S.	(Active)	October 9, 1957
Hall, Jesse Lee	(Active)	April 22, 1958
Higgins, Roy F.	(Active)	June 20, 1958
Hough, William H.	(Life)	May 26, 1957
Jackson, Chevalier	(Honorary)	August 16, 1958
Key, Sothoron	(Life)	May 27, 1958
Kotz, Jacob	(Associate)	February 28, 1958
Lacy, Justin E.	(Associate)	August 28, 1958
McCaffrey, Charles F.	(Associate)	June 25, 1958
McEnerney, Charles H.	(Active)	October 1, 1957
McLaughlin, B. Gill	(Resident-Intern)	March 18, 1956 (reported November 1957)
Morse, Edward C.	(Associate)	September 15, 1957
O'Donnell, William F.	(Life)	April 27, 1957
Prentiss, Daniel W.	(Life)	October 20, 1957
Ruhland, George C.	(Active)	April 15, 1958
Sohon, Elizabeth	(Life)	February 1, 1958
Stieglitz, Edward J.	(Active)	June 12, 1958
Stuart, A. Rhett	(Life)	December 12, 1956 (reported October 1957)
Verbrycke, J. Russell, Jr.	(Life)	February 5, 1957
Whitmore, Eugene R.	(Active)	May 4, 1957
Willson, Prentiss	(Life)	June 25, 1957
Zinzi, Francis L.	(Associate)	October 25, 1957

If they reside and practice in a nearby county in Virginia or Maryland within the Metropolitan Area and they seek Associate status in the Society, they are required to be full members of their own county medical society.

If they have served in the uniformed forces, they are required to provide the Board with a photostat of documents showing that they have served honorably.

Since May 1, 1957, the Board has interviewed 94 applicants for Active, 53 for Associate, 2 for Affiliate, and 17 for Resident-Intern membership. With few exceptions they have been recommended to the Executive Board for election to membership.

The Board takes its responsibility seriously because upon the thoroughness with which it screens

(Continued on page 562)

WOMAN'S AUXILIARY NOTES

The new President of the Woman's Auxiliary to the Medical Society of the District of Columbia is Mrs. M. Noel Stow, wife of a prominent Washington ophthalmologist. "Polly," as she is known to her intimate friends, is a native of Randallstown, Maryland. She received her B.A. degree in mathematics from American University, after which she became assistant to the Head of the Lower School at McDonogh, a private boys' school near Baltimore.

Mrs. Stow has been active in Auxiliary work for the past 13 years, having served as Corresponding Secretary; Vice President, both Second and First; and as President-elect during 1957–58. She has served as chairman of a number of committees and was Bowling Chairman in 1953–54. She is Past President of the Washington Alumnae Chapter of Alpha Phi International Sorority and also of the Panhellenic Association of Washington, D.C. Last year she was Treasurer of the St. Albans School Mothers' Club. She has served as a Cub Scout Den Mother, a Circle Leader for her church, the Metropolitan Methodist, and is a member of the Wesley Heights-Spring Valley Garden Club, The Washington Club, and a member-at-large of the American Association of University Women.

Dr. Stow, a graduate of Emory University School of Medicine, met the versatile "Polly" while interning at the West Baltimore General Hospital. The Stows live at 4859 Rockwood Parkway in Spring Valley with their two children, Eddie, who is in the seventh grade at St. Albans, and Joy, who is in the fifth grade at National Cathedral. They are a happy family with a liking to do things together; the parents share three hobbies, music, photography and gardening. In their garden they have over 1,000 azaleas which have been grown from cuttings.

Definite plans for the activities of the Auxiliary have not been completed, but many of them will be devoted to emphasizing the motto for the year, "Safeguard Today's Health for Tomorrow." Mrs. Stow says, "Past Presidents have laid such firm foundations that we will have to be alert and ready to do our best in order to follow in their footsteps."

Officers and chairmen who will serve with Mrs. Stow for 1958–59 are:

Officers

President-elect: Mrs. G. Louis Weller, Jr.
First Vice President: Mrs. Leonard T. Peterson
Second Vice President: Mrs. Henry A. Hornthal
Recording Secretary: Mrs. John Harry King
Assistant Recording Secretary: Mrs. James Choate
Corresponding Secretary: Mrs. John M. Evans
Assistant Corresponding Secretary: Mrs. Brooks G. Brown
Treasurer: Mrs. Hugh O. House
Assistant Treasurer: Mrs. Harry A. Horstman

Chairmen of Committees

Advisory: Mrs. James E. Wissler
American Medical Educational Fund: Mrs. George H. Crofton
Bowling: Mrs. D. Franklin Hodge
Bulletin and *Today's Health*: Mrs. Leo C. Varden

MRS. M. NOEL STOW
President, Woman's Auxiliary to the Medical Society

Delegate to Woman's Auxiliary to A.M.A.: Mrs. Richard E. Dunkley
Editor of *Newsletter*: Mrs. Thomas G. Edison
Educational and Nurse Recruitment: Mrs. Hugh Irey
Finance: Mrs. J. Chester Brady
Historian: Mrs. Ernest E. Hadley
House: Mrs. Harold Heiges
Legislation: Mrs. Harold M. Hobart
Membership: Mrs. Julius J. Radice
Mental Health: Mrs. Hamilton P. Dorman
Parliamentarian: Mrs. Lawrence A. Rapee
Philanthropic: Mrs. Henry A. Hornthal
Program: Mrs. Jonathan M. Williams
Publicity: Mrs. O. Hugh Fulcher
Public Relations: Mrs. A. Frank Kreglow
Safety and Civil Defense: Mrs. Joseph M. Rom
Social: Mrs. John H. Peacock
Visiting: Mrs. Leonard T. Peterson
Ways and Means: Mrs. Francis J. O'Bryan

News and Personals

MEETINGS

An Institute on Alcoholism will be held at the Hotel Statler, October 24, 1958, beginning with a luncheon meeting and an address by Dr. E. M. Jellinek, of the World Health Organization. In the afternoon there will be group meetings and workshops for physicians and laymen interested in the problems of the alcoholic.

Chairman of the group meeting for doctors, nurses, and hospital administrators will be Dr. Marvin A. Block, of Buffalo, New York, who is Chairman of the Subcommittee on Alcoholism of the AMA's Council on Mental Health.

Other groups and those to lead discussion will be:

Clergymen and Social Workers: Dr. Ernest A. Shephard, Executive Director, Florida State Program on Alcoholism

Law Enforcement and Correctional Agencies: Judge Henry Murtagh, Chief Magistrate, New York City

Representatives of Management, Labor and Alcoholics Anonymous: Mr. Henry Mielcarek, Manager, Personnel Services Department, Allis-Chalmers Manufacturing Company, Milwaukee, Wisconsin

Teachers, Press, Radio and Television: Mr. Raymond G. McCarthy, Associate Editor, *Quarterly Journal Studies on Alcohol*, Yale University

The Institute is sponsored by the Washington, D. C. Area Council on Alcoholism, Inc. and cosponsored by the D. C. Department of Public Health, the Medical Society of D. C., the Medico-Chirurgical Society of D. C., Washington Board of Trade, Washington Area Council of Churches, Jewish Community Council of Greater Washington, Catholic Archdiocese of Washington, D. C., Congress of Parents and Teachers, Federal Bar Association (D. C. Chapter), Washington Bar Associaton, Bar Association of the District of Columbia, and the Greater Washington Central Labor Council, A.F.L.-C.I.O. Dr. Daniel L. Finucane, Director of Public Health, is Chairman of the Committee on Arrangements.

The Honorable William O. Douglas, United States Supreme Court Justice, will be the guest speaker at the first of the **Surgeon General's Medical Meetings** this fall, to be held at the Sternberg Auditorium of Walter Reed Army Medical Center, November 20, at 8 p.m. Justice Douglas will supplement his lecture on "West of the Indus" with Kodachrome slides. Members of the Medical Society are invited to attend.

The Armed Forces Institute of Pathology is celebrating the Centennial of the publication in Berlin of Rudolph Virchow's "Cellular Pathology" with a series of **Virchow Lectures.** The series began on March 3. The last four lectures will be held on the following dates, 11 a.m. to noon, in the Dart Auditorium of the Institute:

November 12: "The Cellular Doctrine in the Framework of Medical Science," Alfred Plaut, M.D., Cardiovascular Section, AFIP.

November 19: "Tumors and Cellular Pathology," Jacob Furth, M.D., Associate Director of Research, Children's Cancer Research Foundation, Harvard Medical School.

December 3: "The Contributions of Studies on Deficiency States to Cellular Pathology," R. H. Follis, Jr., M.D., Chief, Nutritional Section, AFIP.

December 17: "Genetics and Cellular Pathology," K. M. Brinkhous, M.D., Professor of Pathology, University of North Carolina School of Medicine.

Captain William M. Silliphant, Director of AFIP, and his staff cordially invite the scientific public in the Washington area to attend these lectures.

The United States Section of the International College of Surgeons will hold its Mid-Atlantic Regional Meeting at the Homestead, Hot Springs, Virginia, November 17 and 18. In addition to some eleven papers, there will be two panel discussions. Washington physicians will participate in one of the panels, "Management of Acute Surgical Emergencies due to Trauma." Dr. James W. Watts will be moderator. Panelists will be Drs. J. Lloyd Lewis, Robert E. Moran, Duane C. Richtmeyer, and J. Rogers Young, all of Washington; Dr. Edward L. Compere, of Chicago; and Dr. Henry J. Nichols, of Philadelphia.

The complete program may be obtained by writing to Dr. Elbyrne G. Gill, 711 Jefferson Street South, Roanoke 13, Virginia.

GENERAL NEWS

At the meeting of the **Executive Board of the Medical Society of the District of Columbia,** August 25, Dr. Preston A. McLendon, Vice Chairman, presided in the absence of the Chairman. The Board voted to award the Society's Annual Certificate for Meritorious Service to Dr. Donald Stubbs, President of Medical Service of the District of Columbia, for his able leadership in the prepayment field and for his dedication to the position which he holds in the District's Blue Shield Plan, Medical Service of D. C.

The Board voted that the John Benjamin Nichols Award for laymen go to Mrs. Harold N. Marsh, of Washington, D. C. She was recommended to the Board by the Committee on Public Information. Mrs. Marsh is a long-time resident of the District who has served many health organizations in the past 30 years in various capacities and has, in the opinion of the Committee, rendered distinguished service.

Dr. Clifton R. Gruver was appointed to represent the Medical Society on the Health Committee of the District Health and Welfare Council.

At the meeting of the Board, July 28, Dr. George Maksim was chosen to represent the Society at the AMA's Public Relations Institute in Chicago, August 27 and 28. This item was omitted from last month's report of activities of the Board.

The Homemaker Service of the National Capital Area is now established in its own offices at 1822 Massachusetts Avenue, N.W. Miss Jean M. Hall, Executive Director of the Service, wishes doctors to be advised that homemakers are now available to assist families with children, the aged, the ill, and disabled. Requests for service may be initiated by families themselves; by public and private health and welfare agencies; by doctors, hospitals or clinics; and by interested individuals, such as relatives, employers, ministers, teachers, etc.

The need for and purposes of Homemaker Service were described in the June issue of the MEDICAL ANNALS, page 306, by Mrs. Alfred J. Suraci. It is a new service in this area, being financed for the first two years by an initial grant of $30,000 from the Eugene and Agnes Meyer Foundation plus funds to be requested from the public in order to prove its ability to secure funds outside the United Givers Fund. It is expected that it will become a participating member of UGF at the end of that time.

The creation of the **Division of General Medical Sciences** and the reorganization of the **Division of Research Grants** at the National Institutes of Health were announced, August 22, in a news release from the Public Health Service, Department of Health, Education, and Welfare.

The new Division will have three main functions: (1) administration of research project grants in the basic sciences and other fields, (2) support of training in the medical sciences through fellowships to individuals and research training grants to universities and medical colleges, and (3) administration of the Center for Aging Research. The first two functions have been transferred from the Division of Research Grants, the third from the National Heart Institute.

The Division of Research Grants becomes responsible for the study and evaluation of all research grant and fellowship programs of the National Institutes of Health.

Dr. G. Halsey Hunt, formerly Chief of the Hospital Division of PHS and more recently Director of the Center for Aging Research, has been named Chief of the Division of General Medical Sciences. Dr. Ernest M. Allen will continue to serve as Chief of the Division of Research Grants.

Also in August the Public Health Service announced the approval of 58 grants, totaling more than 12½ million dollars, to 51 institutions in 25 states and the District of Columbia for the building and equipping of facilities for research in the sciences related to health. Among the grantees is **Children's Hospital** of Washington, which has been allotted $5,375 for this purpose.

Georgetown Medical Center received a check recently for $3,600 from the National Nephrosis Foundation, Greater Washington Area Chapter. The check will be used to cover the cost of a research fellowship in kidney diseases. It was accepted from Mr. Richard C. Reardon, President of the Washington Chapter, by Dr. George E. Schreiner, Director of the Renal Laboratory at the Center.

Brig. General Carl W. Tempel succeeded Brig. General Sam F. Seeley in the Office of the Army Surgeon General, September 1, as Chief of the Professional Division. General Tempel will be responsible for the professional activities of the Army Medical Service in all general and specialty fields of medical practice. Since May 1957 he has been in command of the Valley Forge Army Hospital at Phoenixville, Pennsylvania.

Dr. Seymour Perlin, Chief of the Section on Psychiatry, Laboratory of Clinical Science, at the National Institute of Mental Health, will take a year's leave of absence from his present post to accept a fellowship at the Center for Advanced Study in the Behavioral Sciences at Stanford, California. He is one of 49 scholars and scientists to receive the award in the 1958–59 academic year. Dr. Perlin is coauthor of a paper which appears in this issue of the Medical Annals.

Mr. Sterling Eagleton, Chief Engineer and Building Superintendent of the National Gallery of Art, has been elected to the Board of Directors of **Children's Hospital.** Mr. Eagleton, who is President of the Washington Society of Engineers, was active in planning the present hospital building, which was erected in 1952.

PERSONALS

Major General Harry G. Armstrong, pioneer in aviation and space medicine, and the second Surgeon General of the United States Air Force, retired, September 1, after almost 30 years in the military service. He was the first to conduct many experiments which provided the medical knowledge to enable man to fly at the great altitudes and high speeds of today's military and civilian aircraft.

In 1934, Major General Malcolm C. Grow and General Armstrong co-founded the Aero Medical Laboratory at Wright-Patterson Air Force Base, Ohio, and General Armstrong was selected as the first Director.

In February 1949, while he was Commandant of the USAF School of Aviation Medicine, he established the Department of Space Medicine, the first laboratory of its kind.

When the USAF Medical Service was created in July 1949, General Armstrong was appointed Deputy Surgeon General, and in December became Surgeon General, which post he held until June, 1954. During the past three years he has served as Surgeon of the United States Air Forces in Europe.

He has received highest recognition in the field of aviation medicine, including the Wellcome Award of the Association of Military Surgeons and the Collier Trophy, presented to General Armstrong in 1940 by the late President Roosevelt. General Armstrong is a member and honorary member of many scientific organizations, including Honorary membership in the D. C. Medical Society.

He is the author of "Principles and Practices of Aviation Medicine," a standard textbook on aviation medicine which is in wide use throughout the world.

At the recent annual meeting of the American Medical Association in San Francisco, **Dr. Thomas M. Peery,** Professor of Pathology at George Washington University School of Medicine, was elected Chairman of the AMA's Section on Pathology and Physiology.

Dr. Howard T. Karsner, Associate member of the D. C. Medical Society, has been reëlected a member of the Board of Directors of Alpha Omega Alpha, honor medical fraternity. The election is for a term of six years.

Dr. Edward C. Mazique, private practitioner, was elected **President of the National Medical Association** at its Annual Convention in Milwaukee, August 11–14. He is President of the Medico-Chirurgical Society of the District of Columbia.

Dr. Mazique received his early education in Natchez, Mississippi, where he was born. He graduated from Morehouse College, Atlanta, Georgia, in 1933 and received the degree of Master of Arts from Atlanta University in 1934. Electing to study medicine, he came to Washington to enroll at Howard University. After receiving his medical degree in 1941, he interned at Freedmen's Hospital, continuing his training there as assistant resident in internal medicine until 1943. He is still on the staff of Freedmen's. For many years he was Clinical Instructor in Internal Medicine at Howard University.

EDWARD C. MAZIQUE, M.D.
President, National Medical Association

Dr. Mazique is a member of the American Medical Association, the Medical Society of the District of Columbia, the American Public Health Association, and the Association of Reserve Officers of the U. S. Public Health Service. He has contributed to community activities through membership on the Board of Management of the Y.M.C.A. and the Citizens' Advisory Council to the District Commissioners.

Dr. Preston A. McLendon, Chairman of the Council on Rehabilitation, was recently appointed a member of the D. C. Commissioners' Committee on Employment of the Physically Handicapped.

Dr. Theodore C. C. Fong has retired from St. Elizabeths Hospital staff, after 35 years of service, to accept a position as Clinical Director at Madison State Hospital at Madison, Indiana. A reception was held in his honor on October 3 at the Hospital.

Dr. Fong is a graduate of Tufts University School of Medicine (1922). He interned at St. Margaret Memorial Hospital in Pittsburgh, after which he came to St. Elizabeths Hospital in Washington for postgraduate training in medicine, surgery, and neuropsychiatry. He was Senior Medical Officer from 1936 to 1942, when he left for military service in the Army Medical Corps during World War II. During the war years, he was Chief of the Neuropsychiatric Service at Darnall General Hospital, with the rank of Colonel. He returned to St. Elizabeths in 1946 to become Chief of the Anti-luetic and Neurologic Section. His last position at the Hospital was Chief of the Geriatric Psychiatric Service.

Captain Thomas M. Foley, Jr., M.C., U.S.N., retired from the Navy, September 1, 1958, after completing more than 20 years' active service. Dr. Foley, a native of Washington, D. C., graduated from the University of Virginia School of Medicine in 1937. After interning at Emergency Hospital, he was appointed to the Naval Medical Corps and advanced through the commission ranks to the grade of Captain in 1954. He served aboard the battleship *U.S.S. Iowa* during World War II in both Atlantic and Pacific waters. His last assignment was Chief of the Orthopedic Service at the U. S. Naval Hospital in Bethesda, Md.

Dr. Winfred Overholser, Superintendent, **and Dr. Leon Yochelson,** medical officer, of St. Elizabeths Hospital, served on the faculty of the Institute for Mental Health of St. John's University, at Collegeville, Minnesota, this past summer.

Femoral Neuropathy—Johnson and Montgomery

(*Continued from page 514*)

BIBLIOGRAPHY

1. Winkelman, N. W., Jr.: Femoral nerve complications after pelvic surgery; report of six cases. Am. J. Obst. & Gynec., 1958, **75**, 1063.
2. Adler, E., Jarus, A., and Magora, A.: Rare peripheral nerve complications in obstetrical and gynecological conditions. Acta psychiat. et neurol. scandinav., 1956, **31**, 1.
3. Clare, F. B.: Femoral nerve repair. J. Neurosurg., 1956, **13**, 195.

Chronic Cor Pulmonale—Heisen

(*Continued from page 524*)

gram to the right antero-inferior octant in both lesions. They thought that the vectorcardiogram showed the pattern of right ventricular hypertrophy clearly; this was particularly helpful in establishing that "incomplete right bundle-branch block" actually represents right ventricular hypertrophy. Finally, they thought that the vectorcardiogram may serve as a gross quantitative estimate of the degree of right ventricular hypertrophy.

Stern and Tenney[89] found that vectorcardiography was a more useful tool in their hands in making the diagnosis of right ventricular hypertrophy. Of 13 cases with clinical evidence of right ventricular hypertrophy the electrocardiogram was positive in only 5, whereas the SVCG was positive in 11.

(*To be continued*)

BIBLIOGRAPHY

67. Kuida, H., and others: Am. J. Med., 1957, **23**, 166.
68. Aitchison, J. D., and Richmond, H. G.: Brit. Heart J., 1955, **17**, 312.
69. Dresdale, D. T., Schultz, M., and Michtom, R. J.: Am. J. Med., 1951, **11**, 686.
70. Burwell, C. S., Robin, E. D., Whaley, R. D., and Bickelmann, A. G.: Ibid., 1956, **21**, 811.
71. Carroll, D.: Ibid., 1956, **21**, 819.
72. Butler, J., and Arnott, W. M.: Clin. Sc., 1955, **14**, 703.
73. Vesell, H., and Schack, J. A.: Am. Heart J., 1952, **44**, 296.
74. Barbato, E., and others: Arq. brasil. cardiol., 1951, **4**, 233.
75. Schick, R., Ritterband, A. B., and Lieberman, A. H.: Ann. Int. Med., 1957, **46**, 392.
76. Gelfand, D., Urbach, J. R., Bellet, S., and Allison, W.: Cardiologia, 1955, **26**, 228.
77. Sussman, M. L., and Jacobson, G.: Circulation, 1955, **11**, 391.
78. Dotter, C. T.: Ibid., 1956, **14**, 509.
79. Scott, R. C., and others: Ibid., 1955, **11**, 927.
80. Sokolow, M., and Lyon, T. P.: Am. Heart J., 1949, **38**, 273.
81. Myers, G. B., Klein, H. A., and Stofer, B. E.: Ibid., 1948, **35**, 1.
82. Blount, S. G., Jr., Munyan, E. A., Jr., and Hoffman, M. S.: Am. J. Med., 1957, **22**, 784.
83. Milnor, W. R.: Circulation, 1957, **16**, 348.
84. Walker, I. C., Jr., Helm, R. A., and Scott, R. C.: Ibid., 1955, **11**, 215.
85. Fowler, N. O., Jr., and Helm, R. A.: Ibid., 1953, **7**, 573.
86. Wasserburger, R. H., and others: Am. Heart J., 1957, **54**, 875.
87. Gross, D. (Santiago, Chile): Ibid., 1955, **50**, 24.
88. Elek, S. R., and others: Ibid., 1954, **47**, 369.
89. Stern, E. A., and Tenney, S. M.: Ibid., 1956, **51**, 53.

"...A Nation of Old Ladies...—Observer

(*Continued from page 548*)

latter. Explanations have been varied. Some scientists point to the fact that the female outlives the male in most species in the animal kingdom. Others ascribe the pressures on males as being responsible, because they are subject to greater strains than women. Investigations of Professor R. B. Vance and Father F. C. Madigan, referred to in the J.A.M.A. editorial, would seem to refute this conclusion.

Vance and Madigan made a study of mortality among the American Catholic "religious brothers and sisters" living under similar conditions. Nuns (sisters), like women in ordinary life, it appeared, also live longer than their male counterparts (brothers). So, as the J.A.M.A. puts it, the "style of life" is evidently no factor in the "sex differential."

It appears, then, that if the present trend holds, there will be a much larger population than heretofore of, let us say, mature ladies. If so, they may become a factor in our society to be reckoned with. Politicians, especially, better be wary of speaking disparagingly of "old ladies," for they are potentially an influential group.

T. W.

Report of Board of Credentials

(*Continued from page 556*)

applicants depends the quality of the Society's membership.

Respectfully submitted,
James A. Dusbabek, M.D., *Chairman*
O. Hugh Fulcher, M.D.
W. Robert Perkins, M.D.

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP

WASHINGTON, D.C.

1958–1959

SOCIETY	PRESIDENT	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETING
Academy of Medicine of Washington, D. C.	D. E. DeLawter	L. K. Alpert	4	Bimonthly	MSDC Building
Allergy	M. Fuchs	F. J. Murray	3	1st Wednesday, Oct., Feb., May	Washington Hospital Center
American Academy of General Practice, D. C. Chapter	M. van Kinsbergen	E. H. Aschenbach	4	4th Tuesday, Oct., Dec., Feb., Apr.	MSDC Building
American Federation for Clinical Research, D. C. Chapter	J. L. Fahey	H. W. Schnaper	5	2nd Monday, Oct., Dec., Feb., Apr., June	MSDC Building
American Medical Writers' Association, Mid-Atlantic Chapter	R. P. Odenwald	A. L. Eckburg	3	On call	
Clinical Club of Washington	R. R. Montgomery	V. L. O'Donnell	7	1st Tuesday	Kennedy-Warren
Clinical Society of Diabetes Association	A. E. Parrish	J. J. Canary	4–6	On call	MSDC Building
Clinico-Pathological	E. W. Davis	M. deG. Ruffin	8	3rd Tuesday	
Diabetes Association	D. E. DeLawter	L. K. Alpert	4	Bimonthly	MSDC Building
Georgetown Clinical	A. Kramm	T. F. McMahon	7	3rd Wednesday	Hotel 2400
George Washington University	H. G. Kain	M. P. Goumas	5	On call	MSDC Building
Hippocrates-Galen	C. W. Jones	R. D. Whitley	5	Nov. 6, Jan. 8, Feb. 5, Mar. 5, Apr. 2	Kennedy-Warren
International Medical Club	W. F. Burdick	A. A. Morris	4	On call	Mayflower Hotel
Jacobi	C. Silverman	M. P. Footer	8	3rd Wednesday	Washington Hotel
Jefferson Medical College Alumni Association	F. W. Konzelmann	S. L. Rollins, Jr.	2	Dec., May	
Kober	L. C. Moss	R. H. Groh	8	3rd Monday	Army-Navy Club
Louis Mackall	J. W. Latimer, Jr.	E. H. Bauersfeld	8	3rd Thursday	Kennedy-Warren
Medical Arts	J. W. Trenis	G. K. Palmes	8	2nd Thursday	Kennedy-Warren
Metropolitan Health Officers' Association	R. G. Beachley	T. S. Englar	4	Quarterly	Prince Georges Country Club
Northern Virginia Academy of Surgery	W. L. Weyl	A. M. Ferry	3	Oct. 7, Jan. 20, Apr. 7	
Osler	C. W. Ordman	H. H. Hawfield	8	3rd Monday (except Dec. 8)	Homes
Pan American Medical Society of D. C.	H. P. Ramsey	J. H. Scully	4	Oct., Dec., Feb., Apr.	Mayflower Hotel
Physician-Veterans of World War II	J. O. Nestor	R. A. Osbourn	1	On call	
Providence Hospital Doctors Alumni Association	V. J. DiFrancesco	D. R. Lenarduzzi	12–15	3rd Sunday	Providence Hospital
Rheumatism	M. H. Stolar	E. T. Phelps	5	On call	
St. Elizabeths Hospital	D. W. Harris	W. J. T. Cody	2	Oct., May	St. Elizabeths Hospital
Society of Anesthesiologists	A. S. Russell, Jr.	T. F. McDermott	4	On call	MSDC Building
Society of Internal Medicine	C. B. Ethridge	F. S. Bacon	1	Nov.	MSDC Building
Trudeau Society	L. L. Terry	J. P. Mann		On call	

(*Continued on next page*)

MEDICAL SOCIETIES WITH LIMITED MEMBERSHIP—*Continued*

SOCIETY	PRESIDENT	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETING
Washington Academy of Neurosurgery	J. M. Williams	S. L. Rollins, Jr.	4	Oct., Dec., Feb., Apr.	
Washington Academy of Surgery	E. A. Cafritz	J. H. Bayly	5	2nd Monday, Oct., Nov., Feb., Apr., May	Kennedy-Warren
Washington, D. C. Dermatological	R. A. Osbourn	J. C. Shafer	7	4th Thursday	
Washington Gynecological	H. P. Parker	R. B. Nelson, Jr.	5	Oct. 22, Dec. 3, Jan. 28, Mar. 25, May (?)	Columbia Country Club and Willard Hotel
Washington Homeopathic	W. P. Baker	H. H. Custis, Jr.	4	4th Tuesday, Nov., Jan., Mar., May	Columbia Country Club
Washington Medical and Surgical	K. C. Corley	E. R. Fenton	6	4th Monday	Army-Navy Club
Washington Orthopedic Club	S. H. Eisenberg	A. M. McKelvie	7	1st Monday	MSDC Building
Washington Psychiatric	R. A. Cohen	M. L. Adland	7	4th Friday	MSDC Building
Washington Psychoanalytic	A. Halperin	S. Berman	7	2nd Friday	1720 M Street, N.W.
Washington Society of Pathologists	C. F. Tessmer	W. Newman	8	Oct. 6, Nov. 12, Dec. 3, Jan. 8, Feb. 2, Mar. 3, Apr. 1, May (?)	Armed Forces Institute of Pathology
Washington Urological	H. A. Goldberg	G. R. Gable	6	Every 6 weeks	Doctors Hospital
Women's Medical	L. I. Platt	A. F. Alberti	8	1st Tuesday	

NOTE: Most of these societies begin their meetings in October and continue through April or May.

SECTIONS OF THE MEDICAL SOCIETY OF THE DISTRICT OF COLUMBIA

1958–1959

SECTION	CHAIRMAN	SECRETARY	NO. MEETINGS PER YEAR	DATE OF MEETINGS	PLACE OF MEETING
Anesthesiology	A. S. Russell, Jr.	T. F. McDermott	4	On call	MSDC Building
Dermatology and Syphilology	R. J. Fields	P. N. Horvath	2–3	On call	
Gastroenterology	W. K. Billingsley	A. F. Castro	4	1st Monday, Oct., Dec., Feb., Apr.	Kennedy-Warren
General Practice	B. Miller	L. A. Klein	4	4th Tuesday, Oct., Jan., Mar., May	MSDC Building
Internal Medicine and Allied Subspecialties	J. W. Trenis	F. S. Bacon	1	Nov.	MSDC Building
Neurology, Neurosurgery, and Psychiatry	M. C. Korengold	T. L. Auth	4	1st Thursday, Oct., Jan., Mar., May	MSDC Building
Ophthalmology	M. M. Parks	E. W. Dodd, Jr.	4	Oct. 29, Dec. 9, Feb. 10, Mar. 16	Kennedy-Warren
Otolaryngology	E. M. O'Brien	M. J. Fischer	4	2nd Tuesday, Oct., Jan., Mar., May	
Pathology and Laboratory Medicine	K. L. McCoy	G. H. Guin	9	4th Friday	Homes
Pediatrics	G. Maksim			On call	
Radiology	J. F. Belair	C. E. Bickham, Jr.	4	3rd Wednesday, Jan., Mar., May, Oct.	MSDC Building

des bactericidal action
nst coccal infections

des successful short-term therapy
nst endocarditis[1]

des clinical effectiveness against
tant staphylococci and enterococci[2]

after almost a year, SPONTIN has proved
an exceptionally valuable agent for treating
us coccal infections.
Some of the outstanding clinical responses
PONTIN therapy involved enterococcal en-
rditis, staphylococcal pneumonias and
ylococcal bacteremias. These were patients
were going downhill steadily—in spite of
ment by other antibiotics.
Results, of course, were not always good.
etimes, the patient was treated with
NTIN too late. Occasionally, there were side
ts and SPONTIN had to be withdrawn. But
rally, SPONTIN proved extremely useful and
times—lifesaving. Be sure
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tics Annual, 1956-'57, p. 706.
tics Annual, 1957-'58, p. 180-7.

important lifesaving antibiotic

Book Reviews

Outline of Orthopaedics, 2nd ed. John Crawford Adams, M.D. (London), F.R.C.S. (England). Price, $8.00. Pp. 428. Edinburgh and London: Livingstone, 1958; Baltimore: Williams & Wilkins, exclusive U.S. Agents.

This book is an excellent text for the medical student, intern or resident, and is well suited for the novitiate in orthopedic surgery. The book opens with a brief history of orthopedics followed by a clear and concise chapter on clinical methods with particular reference to diagnosis and treatment. The broad review in which the author discusses orthopedic disorders presents a seemingly difficult subject well. Discussion of each particular region is then taken up in detail in subsequent chapters. While many textbooks assume that one knows how to make a satisfactory examination of a joint, Dr. Adams has wisely outlined special points in the investigation and examination of the various regions. His discussion of the hip, knee and shoulder is particularly commendable since the diagnosis of many lesions of these joints depends to a great extent upon a thorough and proper examination of these areas.

The illustrations, which are composed of drawings, photographs and roentgenograms, are excellent. They apparently have been chosen with a great deal of care. They help to make the book easier to read and to understand.

Even some of the more common and supposedly insignificant conditions such as a ganglion and plantar wart are considered adequately.

The treatment of the various orthopedic disorders are classified into 3 categories: (1) no treatment, (2) nonoperative or conservative treatment, and (3) operative treatment. Although the first category may appear foolish the author is quite correct when he states that many cases require only reassurance and advice. Detailed account of operative technics find no place in this text and only brief mention is made of the more important operations. Stress is placed rather on examination and diagnosis.

The reviewer congratulates Dr. Adams on his excellent book. It has been an enlightening experience to review this text.

Julius S. Neviaser, M.D.

Handbook of Treatment of Acute Poisoning, 2nd ed. E. H. Bensley, M.B.E., B.A., M.D., F.A.C.P., and G. E. Joron, B.A., M.D., C.M., F.A.C.P. Price, $4.00. Pp. 212. Edinburgh and London: Livingstone, 1958; Baltimore: Williams & Wilkins, exclusive U.S. Agents.

This compact book, as the title implies, is a Handbook of Treatment of Acute Poisoning. Basically, it deals with the most common poisons. The book is divided into two main sections: (1) Basic Principles, General Plan and Methods of Treatment; (2) Important Types of Acute Poisoning and Their Treatment.

The most practical section deals with treatment, what to do before the arrival of the physician, and a general plan to follow after the physician's arrival. Physicians confronted with other toxicological agents, especially industrial or commercial agents, should refer to the more comprehensive texts on the subject.

Vincent Hernandez, M.D.

Correlative Neuroanatomy and Functional Neurology, 9th ed. Joseph G. Chusid, M.D., and Joseph J. McDonald, M.S., M.Sc.D., M.D. Price, paper, $4.50. Pp. 344. Los Altos, Calif.: Lange, 1958.

The paper bound ninth edition of "Correlative Neuroanatomy and Functional Neurology" by Drs. Joseph G. Chusid and Joseph J. McDonald should be classified as an essential book for quick reference by senior students, interns, residents, and general practitioners. It will be of benefit to many taking State Board and in some instances Specialty Board examinations.

The descriptions and explanations are concise and precisely summarized. The photographs and drawings are excellent. The chapters on Electroencephalography, Electromyography, Electrical Examination, Radiologic Examination, Cystometry, Audiometry and Psychometric Tests are relatively short but very informative and in themselves of sufficient value to merit the price of the book.

Several errors of omission were noted, for example in the chapter on Trauma to the Central Nervous System. Cerebral concussion and brain laceration are defined but cerebral contusion is omitted. The authors used the term "cerebral oedema" to define this very important classification. The choice of this nonspecific and general term is not proper.

Their use of the term "postconcussion syndrome" in relation to their definition of this term and their definition of cerebral concussion seems to be a poor selection.

In the chapter on Epilepsy the authors continue to propagate the erroneous classification of the so-called febrile convulsions. By now it should be recognized that

(*Continued on page 55*)

Book Reviews

(Continued from page 52)

in approximately 20 per cent of the cases the fever presents the first phase of the convulsion initiated by a hypothalamic discharge; or, as in the majority of cases, the fever upsets the equilibrium of the potentially convulsive brain. Their explanation of the varying reasons for febrile convulsion have been given more space than seems to be warranted.

These errors of commission and omission may be the result of distinct differences in training and philosophy, albeit they in no way detract from the pleasing usefulness of this precise but comprehensive tome. The publishers should be congratulated in offering such a book at the reasonable price of 4 dollars and 50 cents.

Vasilios S. Lambros, M.D.

Review of Physiological Chemistry, 6th ed. Harold A. Harper, Ph.D. Price, paper, $4.50. Pp. 376. Los Altos, Calif.: Lange, 1957.

The author presents a critical and concise summary of the essential features of modern physiological chemistry. He has judiciously selected his material in the light of the rapid progress being made in cellular intermediary metabolism and endocrinology. He does not intend this to be more than an introductory volume which may serve to emphasize the newer advances. Much of the material is drawn from the author's basic science lectures to physicians taking postgraduate training.

The author has omitted introductory chapters on General and Physical Chemistry which were present in previous editions for the sake of brevity. He has devoted this space for the inclusion of more recent studies devoted particularly to the intermediary metabolism of nucleic acids, porphyrins, carbohydrates, amino acids and hormones.

This text is recommended as a concise introduction to a varied and complex subject. It should prove invaluable to those desiring to bring themselves "up to date" for purposes of examination or review.

Max G. Sherer, M.D.

Diagnostic Medical Parasitology, Edward K. Markell, Ph.D., M.D., and Marietta Voge, M.A., Ph.D. Price, $7.00. Pp. 276, with 115 figures, including 5 in color. Philadelphia: Saunders, 1958.

Although designed primarily as a laboratory manual and textbook for the medical student and technologist, this book provides a concise reference guide for the clinician. Presentation of material is by system involvement rather than species classification, which enhances its readability. There are chapters on intestinal protozoa, intestinal helminths, malaria and other blood parasites,

(Continued on page 56)

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Book Reviews

(*Continued from page 55*)

genitourinary parasites, and tissue parasites; also on arthropods and their relation to human disease. Laboratory technics and other diagnostic procedures are well described, and there is a pertinent discussion on "Pseudoparasites and Pitfalls."

Drawings, which are simplified to avoid confusion, are done with special emphasis on reproduction of intestinal protozoa with the same magnification.

Wisely, all discussion of therapy has been omitted. The authors have succeeded in encompassing a considerable amount of material in a limited number of pages. Included is an excellent list of the more important texts, monographs and journals devoted wholly or in part to medical parasitology and tropical medicine.

VIRGINIA P. BEELAR, M.D.

Cancer and the Atomic Age. CLEMENT A. TAVARES, M.D. Price, $3.50. Pp. 198. New York: Vantage Press, 1958.

Dr. Tavares presents a "radiatomic" energy theory as the common denominator which may tie together all the known facts in cancer causation. He maintains that cancer results from the application of increases in energy to the cell nucleoproteins. A high energy level is normally required by the nitrogen linkage in the desoxyribonucleic acid (DNA) of the cell nucleus. An increase in this energy accelerates the polymerization of molecules of DNA into larger molecular masses, which in turn results in cancer formation. The author reduces his theory to a mathmetical formula which can be used to express the amount of energy supplied by single or repeated episodes. Thus he can account for the effect of trauma, chronic irritation, viruses, other infectious agents, parasitic infestation, thermo-chemical insult to tissues, and radioactivity. All of these factors, singly or collectively, lead to increased energy applied to the nucleoprotein and ultimately to cancer.

The book presents an interesting and provocative review of the known facts about cancer for anyone interested in the subject. The chapter on tobacco completely spoiled my enjoyment of a customary after-dinner cigar.

ROLAND BIEREN, M.D.

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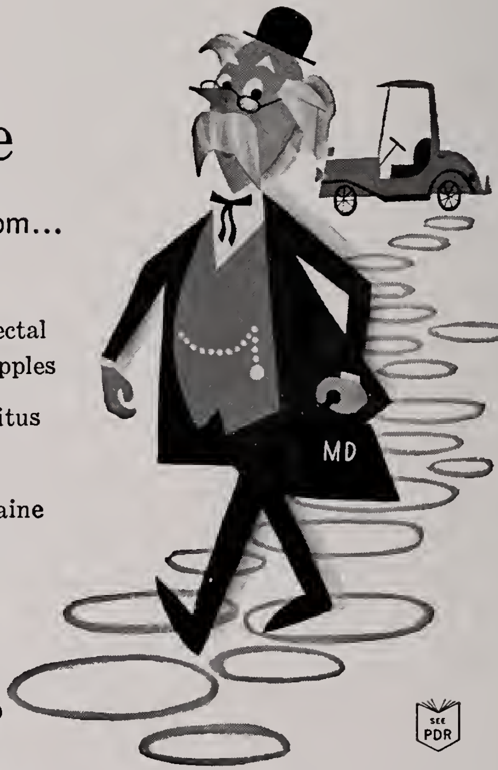

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VIRUSES*

RUSSELL M. TILLEY, JR., M.D.
Washington

FOR MANY YEARS the virus has been known as a tiny particle of matter which was invisible at first and only recently has been visualized. Generally it is considered to be responsible for some severe and many amazing illnesses causing widespread discomfort. In this ear of technological advancement, when we see earth satellites becoming commonplace, infinite space marvels in the offing, and many medical and scientific achievements daily bursting on the scene, it may turn out that the investigation of the virus will be leading us into discoveries that will rival anything else accomplished in this century.

Consider for a moment these striking quotations†:

"The time has come when we should assume that viruses are responsible for most, if not all, kinds of cancer. . . ."[1]

". . . It should be possible . . . to develop viruses . . . with a special predilection for the destruction of cancer cells. . . ."[1]

". . . A few investigators have suggested that the chemical carcinogens work by activating or by causing a mutation in a latent virus. . . ."[1]

"The persistence of a virus in man for many years, for a life-time, or even for two or more generations should not be regarded as an unexpected or unusual phenomenon. . . ."[1]

"With the development of serological technics for studying this agent, it now appears that the salivary gland virus is a widespread infectious agent in man, approaching almost total infection in older age groups."[2]

". . . Whole areas of acute and chronic human disease, unexplained except that they are assumed to be noninfectious in origin, must be reëxamined in the light of the new concepts concerning the nature and consequences of virus infections."[2]

". . . The human cell itself must be regarded as having a considerable viral flora. . . . A virologist can hardly conceive how human cells could remain uninfluenced by the viruses growing within them. . . ."[2]

"During the past decade the concept of viral etiology of cancer and allied diseases has gained considerable momentum."[3]

". . . At this time, most of the common tumors in chickens, such as the various forms of leukemia and sarcoma, have been found to be transmitted by filtered extracts. The natural epidemiology of chicken lymphomatosis through the embryonated eggs has also been established."[3]

---

* Read before the Medical Arts Society in Washington, D.C., January 9, 1958.

† Permission to quote is gratefully acknowledged by the author.

EARLY CONCEPTS OF VIRUSES

In reviewing a textbook of bacteriology published in 1939,[4] and in use in medical schools in 1949, it was seen that the concept of virus morphology ranged from an infectious fluid to an ultramicroscopic particle. However, while nothing of the appearance of the virus was known, it was surprising how much was understood about the actions of the viruses.

Viruses were known to be invisible to the microscopes of the time, and were known to pass through the pores of earthen filters and collodion membranes. Other characteristics were specificity to certain hosts, stimulation or destruction of cells, production of intracellular inclusion bodies, and induction of lasting immunity. There was argument over whether the virus was a living organism, or an enzyme, or contagious fluid. There was general agreement that the virus was particulate and varied in size greatly, and in 1935 Wendell Stanley crystallized a gigantic tobacco mosaic virus.[4]

Further back than this, Iwanowski in 1892 first demonstrated an ultramicroscopic virus to be the cause of tobacco mosaic. A few years later, in 1908, chicken leukemia was shown to be caused by a filterable virus, and in 1910 the well known Rous chicken sarcoma was discovered to have a virus etiology.[4]

Scientists were fairly well convinced that viruses were not just tiny bacteria but that they did show definite antigenic properties.

Finally, there was considerable evidence to support a suspicion that bacteriophage was a virus.

By and large, this was certainly a lot to know about an agent as yet invisible and about which conclusions had to be drawn by inference. At that time there were about 200 diseases of plants, animals, and man considered to be due to viruses.

In spite of all this, the greatest surge in the study and knowledge of viruses has come in the past 10 years. Even now the study of viruses is considered to be one of the largest unknown frontiers for research. With the advent of the electron microscope the actual virus particles can be seen. The question of the living nature of viruses has been answered in the affirmative; and now the scientists have been approaching the boundaries of life itself by disintegrating the virus into its inert constituent parts, and reassembling these parts. In other experiments, virologists manufacture parts and produce viable, transmissible and infectious virus.

CURRENT CONCEPTS OF VIRUSES

In trying to explain the current concepts of the nature of viruses, it may be necessary to oversimplify so that we all may obtain a working knowledge upon which further understanding and study may be made.

First, it must be understood that it is necessary to distinguish between 2 groups of viruses, the smaller ones such as poliomyelitis and influenza, and the larger ones such as lymphogranuloma and psittacosis.[5] The larger viruses are more complex structurally, contain various lipids, and have metabolic activity that is absent from the smaller viruses. Not as much is known about the larger viruses of man as of the smaller viruses. However, the large tobacco mosaic virus has been the cornerstone of research and inference since 1892.

Viruses come in 3 usual shapes. There are some round, some rod-shaped, and some resembling tadpoles with heads and tails. Sizes range from the psittacosis 275 mu to the polio virus 12 mu.

The smaller viruses possess no metabolic activity and are therefore obligate intracellular parasites. They can only grow and reproduce in a cellular medium or tissue culture. It has been shown that viruses possess genetic continuity from generation to generation, and that mutations occur which may or may not alter antigenic properties. The question of mutations is an important one because of the emergence of new diseases, such as the Asian influenza, and also because of the efforts to produce a live virus antigen which would be a mild mutation of a virulent virus, but having the ability to provoke antibodies to protect against the more serious infection. So far in polio research there is evidence to show that while this may work well in the original inoculation, it is possible for the mild virus to resume virulent properties in passage through several contacts.[6] Mutations occur once in every 1 million to 10 billion.[5] However, in pure cultures of mutants the organisms mutate back to the original form with the same frequency. It is possible for situations to exist where one mutation in a favorable environment proceeds to a point of almost pure mutation. Then as the reverse situation becomes favorable, the culture reverts to the original infectious agent by mutation again. This is simple, but take for example the penicillin-resistant Staphylococcus. To become resistant the Staphylococcus has to undergo 5 mutations, carried on in the absolutely favorable environment of abundant penicillin. Once this is established, there is almost a fixed mutation, because, in order to revert to the original organism, it must reverse the 5 mutations, again under ideal conditions, and this is virtually impossible. In contrast, the streptomycin-resistant tubercle bacillus is a much more simple mutant and is constantly reverting to streptomycin sensitivity.[5]

Just last year the polio virus became the first mammalian virus to be crystallized. What the scientists have discovered, essentially, is that the virus is made up of a central core of nucleic acid which is the genetic material or transmits the genetic information.[5] This nucleic acid is infectious by itself, resembles the gene nucleic acid of cells, and determines the type of disease produced by a virus. The nucleic acid is coated, usually, by 1 or more layers of protein, and it is this protein which supplies the specific antigenicity.[7]

The elucidation of this structure has advanced to the point in tobacco mosaic virus where the virus can be separated into protein and nucleic acid fractions. These are further degenerated to their constituent parts, then all brought together again. Out of this resynthesis about 10 per cent of the material can cause typical disease and reproduce. Mutants are the result of replacement of a single base in a nucleic acid molecule by a different purine or pyramidine. Many of these replacements are lethal to the virus, but the viable mutations proceed at the rate previously mentioned.[8, 9]

From the study of bacteriophages, which have turned out to be tadpole-shaped viruses that parasitize bacteria, it has been shown that there is a considerable difference between the virus that we can see outside the cell and the virus as it exists inside the cell. The infectious process in a single host cell can be divided into 4 stages[5]:

1. Adsorption. In this stage the virus protein becomes attached to the cell by electrostatic forces.

2. Penetration. In this stage the nucleic acid core of genetic material is injected into the cell after enzymatic action succeeds in penetrating the cell wall.

3. Intracellular multiplication (replication). In this stage the genetic material divides and replicates itself by means of an intracellular mechanism not yet known and may be recoated with virus protein.

4. Release of virus progeny. This may occur explosively, destroying the host cell, or slowly and not damaging the host cell directly.

At this point, the conjectures on latency come into the picture. It is clear that colonies of bacteria can grow, universally infected by bacteriophage, yet not adversely affected by it. It has been thought that the nucleic acid makes a close relationship with the gene material of the cell and divides with it, thus carrying infectious virus material from generation to generation in the cells. This virus nucleic acid cannot be seen or detected in this latent form, but, if and when activated by some agent, may become active, replicate, coat itself with protein, and resume visible and active virus properties.[10, 11]

In reviewing the work on viruses as agents of infectious disease, it appears that over 100 virus agents have been discovered, some of which have not been associated with diseases.

Virologists list the most important advances of 1956 as follows[6]:

1. Progress in the use of live virus for vaccination against polio and adenoviruses.
2. Expanding use of tissue culture technics.
3. Increased knowledge of orphan viruses.
4. The search for antivirotic agents.
5. Oncolytic viruses.
6. The discovery of the infective ability of nucleic acid.

Dr. Hobart Reimann,[6] in an article in 1957, made some provocative remarks. Among them is his observation that the majority of infections dealt with in general practice are of viral origin, and no virus smaller than that of vaccinia is amenable to any form of therapy available at present. On this basis there is an estimated wastage of 90 per cent of antimicrobials used.

Interesting Advances in Diseases Caused by Viruses

This paper will not go into all the diseases caused by viruses but will mention some of the interesting recent advances.

Measles. For years the measles virus has been hunted and has demonstrated that it is difficult to handle and easily lost. However, it was isolated in 1954 and 1955 in 8 cases and seems to be the actual agent of the disease.[12] Enders has reported a long cultured strain of measles virus which will multiply in embryonated hens' eggs and seems to be multiplying in chick embryo in tissue culture.[12] If this continues and the virus is a good antigen, the way will be clear to early production of a vaccine.

In the case of rubella there is only suggestive evidence that the agent has been isolated in tissue culture.

Chickenpox. Chickenpox has so far shown the unique characteristic, shared only by herpes zoster, of transferring only in serial passage when infected cells are present. Confirmation of isolation is lacking.

Herpes zoster. The work on herpes zoster parallels that of chickenpox so closely that with the methods now available there is nothing incompatible with the suggestion that herpes zoster may represent the results of induction of latent varicella virus in a patient previously infected with varicella.

Infectious exanthem. An unusual illness first noted in Boston in the summer of 1951, and later in Pittsburgh in 1954, has been named infectious exanthem, Boston exanthem, or unusual exanthem. In children this starts with a fever and a pink maculopapular rash over the face, trunk, and extremities. There is moderate lymph node enlargement of the head and neck, but little sign of systemic disease. Adults usually have chills, severe headache, myalgia and less rash. The virus has been isolated by tissue culture growth characteristics and serologic response but has not been fully classified, although it is expected to fall in the Echo group.

Roseola infantum. The roseola infantum virus was isolated in Boston. This illness exhibits a fever up to 105°F for 4 to 5 days. The patient does not appear very ill, and toward the end of the course a maculopapular rash develops on the shoulders and chest. This virus is not related to unusual exanthem, and is immunologically identical with type 3 adenovirus.

Fifth disease. Fifth disease or erythema infectiosum showed a typical outbreak in Reading, Pennsylvania in 1955, with symmetrical erythema starting on the face and spreading peripherally, becoming more marked on the lateral surfaces of the arms, legs and buttocks. The rash is made up of maculopapular spots which fade from the center to give a lace-like or geographic appearance. It fades on pressure and is evanescent, being associated with physical exertion. It lasts for 10 days and may itch. The rash on the face tends to be confluent with sharply demarcated edges and spares the nasolabial region. Only 6 of 67 in one epidemic had fever. The most that can be said is that a virus was isolated that may be related to the disease.

Nottingham meningitis. An interesting new disease variously known as Nottingham meningitis, Trent Valley fever, or Iceland disease has 2 groups of symptoms, 1 of which predominates in certain outbreaks. Some patients complain of stiff neck, headache, fever, myalgia, rash, and lymphadenopathy. The spinal fluid cells range from normal to 2,000 per c.c. Other patients show severe headache, great emotional lability, nausea and vomiting, paresthesia, severe myalgia, weakness, paralysis, urinary retention, long convalescence, frequent relapses, and ultimate recovery. The spinal fluid is normal. This group of symptoms may be more than one disease, with more than one etiologic agent, one of which has been identified as Echo virus type 9.

Poliomyelitis. Much is known about poliomyelitis. The definite etiologic agent has been identified, grown in culture, crystallized, and a vaccine produced. This virus is capable of producing aseptic meningitis, but not as often as previously thought. The present concept of polio infection is interesting. It appears that the ingested virus attaches itself to the mucosa of the nasopharynx and intestines, where it multiplies. From here it enters the regional lymph nodes and overflows into the blood stream. It is then taken up by cells of the reticulo-endothelial system. Some strains multiply and cause viremia and others do not. Virus may then relocate in the alimentary mucosa. From various sites of growth the virus invades the sympathetic and sensory peripheral ganglions, and, if it is highly neurotropic, further invasion of the central nervous system occurs. Antibody probably exerts its effect on the neural sites of multiplication by preventing secondary localization of viruses in other tissues, and reducing the extent of invasion of various peripheral ganglions. With this in mind, the present vaccine is probably not the best to prevent polio. It may be desirable to give subsequent feedings of live, attenuated viruses to keep immunity up, since the Salk vaccine does not interfere with alimentary infection induced by feeding of attenuated viruses. However, the drawback to this is evidence that in serial passage the attenuated viruses may regain their pathogenicity.

Primary atypical pneumonia. As currently diagnosed, primary atypical pneumonia is a syndrome of multiple etiologies.

Common cold. No cytopathogenic changes have been shown for the common cold virus, and human volunteers are still needed for its identification.

Newborn virus pneumonitis. In 1952, in Sendai, Japan there was an outbreak of a disease to be called newborn virus pneumonitis, type Sendai. The symptoms have an abrupt onset with fever, dyspnea, cyanosis, jaundice, minimal physical findings, X-ray changes, spiking temperature curves, and often death at the height of a temperature spike. This virus has influenza-like characteristics, yet it is different from influenza viruses A, B and C. It is easy to isolate and identify and may later be classified as influenza type D.

Canine distemper. There is good evidence that the canine distemper virus can cause infection in man, but confirmation has not yet been obtained.

Giant-cell pneumonia. Giant-cell pneumonia may be caused by the measles virus.

Cytomegalic inclusion disease. Cytomegalic inclusion disease is caused by the salivary gland virus, so-called because it was recognized that the characteristic lesions are found most frequently in the salivary glands. In infants this is thought to be an intra-uterine infection due to concurrent active disease in the mother. The virus causes the growth of a characteristic large cell with intranuclear inclusions which may be disseminated widely through the tissues of the body. It is frequently fatal in infants and children, but it is clear from autopsy material that this disease is present in a large number of children at a young age and may infect almost 100 per cent of the adult population.

Myocarditis in newborns. Several cases of myocarditis in newborns, with severe generalized infection, fever, tachycardia, cyanosis, circulatory collapse and death, have been traced to the Coxsackie B viruses.

NEW VIRUS GROUPS

This brings us to a brief discussion of the 3 new virus groups.

Adenoviruses. The adenoviruses number at least 14 different types. They are most frequently grown out as latent viruses from normal-appearing adenoid and tonsil tissue. Seventy to 80 per cent are types 1, 2, and 5. Type 3 is known to cause pharyngeal-conjunctival fever, simple conjunctivitis, nonbacterial exudative pharyngitis, and acute respiratory disease. The APC viruses probably account for many of the summer sore throats and can cause primary atypical pneumonia. In spite of the prevalence of the APC virus, it seems apparent that subclinical attack rates are very low, in the neighborhood of 3 per cent, and those patients in whom the virus was isolated had symptoms of disease.

Coxsackie viruses. The Coxsackie viruses are divided into Group A and Group B. Group A is frequently found in the stool of normal people in the summer. There are at least 19 types, and only 5 are cytopathogenic. Of these, some may cause herpangina and some aseptic meningitis. Group B, on the other hand, has 5 types, and all are cytopathogenic. They are rarely found in the stools of normal persons and are associated with a wide variety of clinical pictures, notably those of meningeal and muscle involvement such as aseptic meningitis and pleurodynia.

ECHO viruses. The ECHO viruses get their name by using the first letters of a longer designation, enteric cytopathogenic human orphan. They have been found in large numbers in stools of individuals from widely different areas. There are at least 14 different antigenic types. They have been called orphan viruses in search of disease, because, while they exhibit cytopathogenic tendencies, until recently no one has been able to match them with diseases. Now at least 1 has been related to cases of aseptic meningitis such as Nottingham meningitis. There has also been a theory advanced that while they may have the potential to cause disease, there may be a number of lazy ones which actually are not at present agents of any disease.[12]

An interesting observation has been made with regard to the use of microbes in warfare. Most ominous is the possibility of developing a new virus artifically with the spreading power of influenza, and the virulence of smallpox, against which no one is immune.[12]

VIRUS LABORATORY FOR CLINICAL SERVICE

Dr. John Utz and others,[13] in a recent article in *The Journal of the American Medical Association,* gave the particulars for a diagnostic virus laboratory for clinical service. He describes a laboratory of 960 square feet capable of handling a monthly average of 160 specimens for virus isolation studies and 150 serum samples for serologic studies.

The personnel required are:

Two physicians, part-time
Bacteriologist with a B.S. degree
Biologic aide
High school graduate
Bacteriologist with an M.S. degree
Clerk-laboratory worker, part-time

Methods used are:

1. Animal inoculation
    - Suckling mice for Coxsackie virus
    - Adult mice for encephalitis and psittacosis
    - Rabbits and adult mice for herpes simplex
    - Guinea pigs for rickettsia
2. Embryonated hen's egg inoculation for influenza and mumps
3. Serum studies
    - Complement fixation for encephalitis, psittacosis, and rickettsia
    - Hemagglutination–inhibition for influenza and mumps

4. Tissue culture technics

Materials used are monkey kidney and HeLa cell culture.

Routine clinical procedures are used to obtain the following types of specimens for examination: tissue; swabs of eye, ear, nose, throat; anus; vagina; ulcer or skin lesion; and specimens of urine, sputum, stool, bone marrow, synovial fluid, spinal fluid, pleural fluid and blood clots.

Routine laboratory procedures included inoculation of specimens the same day as received and observing tissues daily for cytopathogenic effects which are allowed to proceed to the maximum degeneration. One to 5 serial passages are made to assure that the changes are due to specific virus effects, then a pool of positive supernatant fluid is made up of a late passage for virus typing.[13]

VIRUS CONCEPT IN CANCER

The evidence for virus production of cancer is impressive and becoming voluminous. This concept has gained considerable momentum in the past 10 years, led by such outspoken proponents as Wendell Stanley, who, as you remember, was crystallizing tobacco mosaic virus in 1935. The point has been reached where thoughtful scientists are considering that many, if not all, malignant tumors may be caused by viruses.[1]

Much of the work supporting these ideas has been done with chickens and mice. The most impressive recent work has been with mice. The fundamental discovery of Bittner in 1936, showing that a certain form of breast carcinoma in the mouse is due to a virus that is transmitted in the milk from currently healthy carrier mothers to the suckling offspring, is probably the turning point in the history of modern cancer research.[3] In 1951 mouse leukemia was demonstrated to be caused by a filterable virus. At first it seemed apparent that it was necessary to inject the cell-free leukemic extract into newborn animals only a few hours old to produce disease. Recently there has been evidence to show that there may be several mouse leukemia viruses, and 1, a myelogenous leukemia, has been successfully transmitted to adult Swiss mice. Further, a cell-free leukemic extract has been inoculated into newborn animals of certain susceptible, nonleukemic strains and has resulted in the production of leukemia in some, parotid gland carcinoma in some, and subcutaneous fibromyxosarcoma in others. The question of whether one virus may induce several different cancers or that the extract contains a mixture of oncogenic agents has not been answered. In certain carrier mice of leukemic strains, who are destined to develop leukemia in middle age, it has been shown that when the mice are apparently perfectly healthy they transmit the virus to the offspring. This does not occur through the milk as in mammary carcinoma, but directly through the embryos from generation to generation.[3]

Here again, the latent nature of viruses seems to have a prime position in the explanation of these occurrences. Consider the formation of a pro-virus anchored to a chromosome and dividing with the cell and within the cell as a nucleic acid not exposed to the immunologic influences outside the cell and not coated with the antigenic protein substance. There is no visible or biologic evidence to reveal the viral presence. This condition could continue for generations or centuries until or unless a substance or form of energy is encountered which is capable of liberating or potentiating a pro-virus. Some of these agents are ionizing radiation, ultraviolet light, hormones, nitrogen mustard, and coal tars. Such agents are also able to stimulate increased rates of mutation.

So far, only warts and papillomas in humans have been found to be transmissible by filtered extracts. However, by analogy, it is not unreasonable to suggest that many human tumors may be caused by viruses. If all this is true, it sheds light on the carcinogenic action of certain chemicals and the development of leukemia in radiologists and population groups exposed to ionizing radiation, and it would explain the striking reports of familial incidence of cancer and leukemia in humans.[3]

On the other side of the coin is interesting work going on in the use of virus to destroy cancer. Holzaepfel and Boutselis[14] in 1957 reported on an experiment using the APC3 virus as grown on HeLa tissue culture. They took H. Ep.3 tumor which was originally derived from an epidermoid carcinoma whose primary site was in the buccal cavity. In series no. 1 they injected the tumor into Wistar rats, and once the tumor was established they injected APC3 virus into the tumor. The result was necrosis and regression of the tumor. In series no. 2 a mince of tumor tissue and APC3 virus was injected. No growth was observed in a number of cases, while architectural derangement of the tumor cells was greater than in series no. 1. In series no. 3 tumor mince with HeLa culture was used, and the tumor grew as it did in the tumor control group.

Summarizing this diverse topic of viruses, with all the perils of multiple viruses inherited in the cells, invasion of more by direct routes, and the acquisition of even more carried in with bacteria and coupled with the ever-present influences of sunlight, smoking, routine chest X-ray examinations, and hormone therapy, it is surprising people are as healthy as they are. It is appropriate to close with a reminder from Dr. R. J. Huebner[2] that "whole areas of acute and chronic human disease, unexplained except that they are assumed to be noninfectious in origin, must be reëxamined in the light of the new concepts concerning the nature and consequences of virus infections."

Summary

In the rapid development of knowledge about viruses and virus diseases, scientific investigators are coming into an era of tremendously important information relating the virus to such disease processes as cancer and degenerative diseases.

It has been shown that virus particles can invade a cell and mingle with the chromosome, to remain invisible for days, years, or generations before becoming activated and assuming a virulent, visible form again. Also important in understanding the changeable nature of viruses is the fact that mutations are constantly occurring.

Studies are now under way in which living viruses can be synthesized from the inert nucleic acid and protein components.

Epidemic studies of common and uncommon virus diseases are laying the groundwork for rapid diagnosis of unusual outbreaks, and for the production of vaccines to prevent the regular recurrence of common virus diseases like measles.

It is now becoming feasible to outline the working components of a diagnostic virus laboratory that could function in a moderate-sized hospital.

The theory of the viral etiology of some, if not all, cancer has been formulated mainly by studies with animals, in which the evidence is very impressive. Recently, studies with human cancer cells in culture have been bearing out the previous work. New reports are being brought out regularly, as the focus of attention is being brought to bear on this aspect of possible cancer control by means of vaccines.

BIBLIOGRAPHY

1. Stanley, W. M.: CA, 1957, **7,** 97.
2. Huebner, R. J.: Pub. Health Rep., 1957, **72,** 377.
3. Gross, L.: J.A.M.A., 1956, **162,** 1318.
4. Zinsser, H., and Bayne-Jones, S.: A Textbook of Bacteriology, 8th ed. New York: Appleton-Century, 1939, pp. 766–842.
5. Adams, M. H.: Bull. New York Acad. Med., 1957, **33,** 397.
6. Reimann, H. A.: A.M.A. Arch. Int. Med., 1957, **99,** 955.
7. Fraenkel-Conrat, H., and Singer, B.: Biochim. et biophys. acta, 1957, **24,** 540.
8. Viruses made to order. Brit. M. J., 1957, no. 5015, 390.
9. Hart, R. G., and Smith, J. D.: Nature, London, 1956, **178,** 739.
10. Wilbur, E. L.: J. Arkansas M. Soc., 1957, **53,** 315.
11. Stoker, M. G.: Brit. M. J., 1957, no. 5025, 963.
12. Sprunt, K.: Am. J. M. Sc., 1957, **233,** 688.
13. Utz, J. P., Parrott, R. H., and Kasel, J. A.: J.A.M.A., 1957, **163,** 350.
14. Holzaepfel, J. H., and Boutselis, J. G.: Cancer, 1957, **10,** 577.

DISABILITY EVALUATION WITH PREËXISTING IMPAIRMENT

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Washington

"BUT MY BACK never hurt me before I lifted that ladder." This is a type of statement only too often met with in medical practice. It was found that the patient had a definite osteoarthritis that obviously had been present for years. He had come in for a recent back strain which had been promptly controlled. Here is the problem: How are we to explain to this man, who has backache and who had an injury, that his symptoms have become focused as a result of an injury on a part of his body which has been impaired for years but with which he had learned to live?

An ophthalmologist has pointed out the essentials of the problem very clearly in a discussion relative to an eye injury. After a minor abrasion of the conjunctiva had been cured the patient observed that his visual acuity was impaired. A refraction showed an error which was very common in a patient of his age. The man had discontinued any serious reading years prior to the injury, and only after the injury had he made an effort to determine his real visual ability. He suddenly discovered that he could not see as well as he thought he should. This is the same phenomenon as is the back, yet the answer is much more simply explained. Adequate treatment will include provision early in the course of all injuries for the answer to this common complaint. It is a problem which has not been discussed sufficiently.

When the injury has been properly controlled but pain and disability still continue (and it is definite that the patient has a preëxisting impairment accounting for the newly focused complaint), one must clearly explain to the patient at this time that his symptoms are not the result of the injury. This must be explained to the patient, to the employer, and to the court if necessary, in a manner which will leave no doubt in the mind of anyone that proper treatment has been given and should be concluded for the injury per se. Continued disability payments beyond this point will create psychologic harm to the individual as well as unjustified expense to the employer.

A clear line must be drawn to pinpoint the direct effect of a particular injury. If this is not accomplished, the employer will be forced to compensate the injured individual for preëxisting disease or injury which has gradually grown to the point where a minor bruise topples the camel over and leaves us with the necessity of paying for the camel instead of the straw. The back injury has been generally considered to be the greatest problem in evaluation of these preexisting impairments, yet it is only one of the problems which must be met. Although bone and tendon injuries are more common in a practice dealing with trauma, injuries to the nervous and vascular systems are also frequently encountered.

The problem of preëxisting impairment is obviously one that need be considered early in the course of any injury. One must know where, when and how the injury occurred and in what condition was the injured at the time of the accident. What is the extent of this injury and what effect will this have on preëxisting abnormalities? What is the immediate outlook; when can the patient be expected to return to work, and what will be the permanent effect? One must obtain the information to answer all these questions. Some of the answers may be obtained by referring to the patient's previous work record. Perhaps a report of physical examination at the time he went to work will be available. Usually his employer and co-workers will have some knowledge of his status. Unfortunately, many of our patients minimize previous disease, impairments and other abnormalities, some by forgetfulness and some by intent. Nevertheless, when suspicion arises, a thorough search must be made. Information of this type is easier to acquire early than late in the course of treatment.

Necessity of Early Appraisal

At the time of the first visit in an injury one must immediately plan his assay of preëxisting factors in the individual. The psychologic background and the motivation will need more than a passing note. After the history is obtained and preliminary physical examination has been made, the most important single factor in many cases will be an X-ray examination. Preëxisting abnormality may be found by study of the history, the physical examination, and, quite often, laboratory procedures. In addition to X-ray examination a sedimentation rate may be most valuable. It is obvious that there are limits. Unnecessary tests can be actually harmful. If one begins the treatment of an injury with the knowledge that a preëxisting arthritis or congenital anomaly is present, he will not be led to tell the patient he will be able to return to work in a week and then be faced at that time with an obvious abnormality which had not been previously considered but which is still causing symptoms, subliminal, perhaps, prior to injury but quite definite now. With proper understanding of preëxisting factors the road to recovery is smooth. The patient may recall that his back was stiff or weak prior to injury, and when he knows that this preëxisting abnormality has actually been demonstrated he can more readily understand that his temporary abnormality will be and should be treated as such. X-ray films taken early in the course of injury which disclose preexisting disease will be of much more value than those taken months or years after the injury when it may become impossible to determine the amount of bone abnormality caused by injury as contrasted to disease. Again, an X-ray film at the time of injury will be available to compare with pictures made months later when the patient may complain that his injury has caused an aggravation. Such a film may prove that there has been no change, at least from an X-ray standpoint. Effective disposition and prediction of the outcome of the present injury depend on this early evaluation, and it is particularly important to be able to advise the patient and the insurer in order that they may effect plans which will prove mutually beneficial in providing for the future of the patient.

It is generally considered that, in most instances, the effect of a single trauma will be present immediately after the episode, and it is usually considered that a single trauma will not aggravate a preëxisting condition. It may, however, affect a preëxisting impairment by causing further injury to a previously damaged tissue. It behooves us, therefore, to make certain of the background. Does the injured back obscure underlying cancer of the prostate? Is there latent or active tuberculosis present? Is rheumatoid arthritis present which may be reactivated? Diabetes will almost always adversely influence an injury. Its presence should be known early, because it will invariably complicate the treatment. Congenital and postural abnormalities obviously will not be improved after injury, and the patient with a spina bifida, with significant bone loss, or with spondylolysis will, usually, sustain more loss of time from work than will a normal patient given the same injury. The early demonstration of these preëxisting factors will clarify in the doctor's and in the patient's mind what can be expected. The presence of arthritis and old fractures manifested by X-ray changes months after the injury will affect not only the treatment but may, if brought out late, be erroneously considered to be a result of the injury. Such complicating factors are frequently alleged to be aggravated by injury, particularly if not discovered until months or weeks have elapsed. This should be discussed with the individual when it is obvious that their effects not only were present before injury but will continue to be troublesome after injury.

Preëxisting impairments are many and varied. With the increased age of workers we are seeing today, senile changes and osteoporosis may well be present in many individuals. If these are not known early their effects become potentially disastrous if discovered late. Finally, psychologic factors, first mentioned and lastly stressed, are probably the single greatest factor in the evaluation of disease outcome. These factors must be brought to light early, since immediate explanation and suggestions may prove the psychologic tool needed as a part of the treatment to return the patient to the condition which existed prior to the injury. The patient may be a potential or, in fact, an actual malingerer. He may be satisfied to live for an indefinite and prolonged period on weekly benefits if he can make them available. Such cases need careful review of their previous work records. Frequently, the question of motivation will arise.

Krusen and Ford[1] have recently shown in a study of some 500 patients treated for back injury that the 54 per cent eligible for compensation required more treatment and fewer were improved than the 46 per cent not covered by insurance. Aitken, discussing the work of Haggart and Grannis,[2] found that of 36 compensable cases in women who underwent disc surgery only 4 ever returned to work. Certainly, preëxisting psychologic impairments and preëxisting organic defects play a factor in the poor results reported by most observers in managing compensable injuries.

TREATMENT OF THE WHOLE INDIVIDUAL

The treatment of the injury per se, which is our obligation, cannot be pursued to the neglect of the treatment of the individual as a whole. The obese patient, for example, may continue with back disability until a definite reduction of weight has been obtained. This weight reduction is necessarily a part of his treatment and must be pursued with a knowledge of the psychologic background for the obesity. We are thus faced with the necessity of generalized psychologic and organic treatment of the individual as a whole before we can expect to accomplish our particular objective, the proper management of the injury.

A very frequent and troublesome complication of the injured is the attitude of exaggeration, which is almost invariably developed when litigation becomes necessary. Both subjective and objective signs and symptoms are magnified. It must be remembered that "when symptoms are chronic but related to a history of an accident, it is likely that the alleged accident was a coincidence and not the cause of the disabling state."[3]

There is an old axiom that the more serious the injury, the easier the evaluation becomes. Nothing could be more true when we are dealing with industrial injuries. As a corollary, one of the most difficult things in medicine is to convince some patients that minor injuries do not usually cause persisting symptoms. To satisfy some patients that their continuing symptoms are not the result of some minor injury may be impossible, but every effort must be made and all the psychosomatic methods which are available to us today should be used in treating them. The key is for the physician to demonstrate to himself and show the patient that there was a disability prior to the present injury if such is the case. Such psychosomatic treatment, including suggestion and explanation, is a matter of urgency and necessity early in the course of the illness. It may prove useless or actually harmful if delayed.

RESERVE FOR COMPENSATION PAYMENTS

From the standpoint of the employer or, more particularly, from the standpoint of the insurance carrier in compensation cases, the question of an adequate reserve will need to be determined as early as possible. This reserve will include funds to be set aside for necessary medical treatment, for time lost during the course of treatment, or until the patient is able to perform the required duties of his occupation. One must estimate the possible degree of permanent disability which might reasonably be anticipated and inform the carrier of these facts. When this is done our relations will follow a much more compatible course and the carrier will not be faced later with payments which have not been anticipated.

Compensation law varies from state to state, and one must be aware of the law applicable in the state where the accident occurred. As Watts[4] has recently pointed out, the U. S. Department of Labor is working on a reappraisal of Workmen's Compensation Law. When completed, the various states may possibly standardize compensation disability to a point where disposition can be more easily effected. This will provide that prior permanent impairment in an injured case when known will be considered in the settlement and employers will become more willing to hire people with known disability. At this time, for example, in the state of Maryland, if a previously disabled worker is further disabled on a job, his employer may be responsible for the entire resulting diasbility.* The question of physical condition at the time of employment has thus become a matter of importance in well managed business. Many firms now include X-ray films of the back and chest in the pre-employment physical examination. Such films, though costly, are not prohibitive, and the experience of many firms has shown such examinations to effect considerable saving. In the long run reduced compensation premium and premium rebates will amply reward the initial medical expense. Second injury funds have been of limited value, since in most states these benefits for combined injury apply only to those resulting in permanent total disabilities.

Rating of Impairment

Rating of the disability arises after treatment is completed. It is here that the knowledge of the state, or condition, in which the patient was working at the time of injury is necessary to render a proper report so that he may secure a just compensation award for his disability. It must be pointed out that rating of permanent disability is not a purely medical problem. This is an administrative decision and will consider the activities engaged in by the individual who is disabled. The medical problem is one of estimating the degree of temporary or permanent impairment. "A Guide to the Evaluation of Permanent Impairment of the Extremities and Back" has been recently published by *The Journal of the American Medical Association*[5] and is of considerable value. This Guide uses solely an objective evaluation in the rating of impairment. It is obvious that impairments which preëxist but which affect a new injury must be separated and explained quite clearly.

Most states specify clearly the number of weeks of pay which will be awarded for various degrees of impairment. The Longshoreman's Act, last modified in the 84th Congress by Public Law 803, sets forth disability allowances in the District of Columbia. It must be emphasized that the evaluation should be no greater than objective tests demonstrate. This rating must be adhered to regardless of the claim of the patient, who may claim more, and of the insurer, who may remain unconvinced that this is the degree of impairment that actually exists.

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* In Maryland an employee may waive benefits as to any subsequent injury naturally and proximately caused by a previous injury or disability (Art. 101, Sect. 52—Maryland Code). However, in 1 case (Bethlehem Steel Co. vs. Ruff, 203 Md.—387) it was held "that the language of this section with respect to waivers requires that the injury be directly and solely caused by the previous condition."

In cases in which disability due to preëxisting disease or infirmity is not apparent the employer is protected by the apportionment clause (Art. 101, Sect. 35 [7]—Maryland Code-Workmen's Compensation Law of Md.). Under this clause the Commission shall determine the proportion of such disability which is reasonably attributable to the injury and that proportion which is reasonably attributable to the preëxisting disease or infirmity, and the employee will be entitled to compensation for that proportion attributable to the injury.

Medical opinion is only persuasive evidence and not a mandatory influence upon a Commission's findings. The Commission in some cases may consider the nature of the patient's work and his ability to perform this work after sustaining an injury when rendering a compensation award for a disability.

A recent fracture of the navicular of the foot has led to some 16 months' loss of work, not so much because of the navicular damage but because an ankylosis of an old fracture of the talus with deep-seated infection developed a flare-up following the navicular fracture. Incision and drainage was necessary. The foot has now improved. The ankylosis of the talus has returned to the status which was present prior to the injury. The navicular has healed, and the foot, on walking, is now relatively painless. Stiffness of the ankle is still present. The patient knew of this stiffness, had learned to live with it, and is again satisfied with it. The man has a disability of the foot of some 20 per cent, yet no more than 10 per cent of this disability is actually the result of the fractured navicular. It is clear to all the sequence of events. Adequate treatment has been given, and adequate compensation will be awarded. Without eliciting the full picture, the insurer could have been led to pay compensation for a previous injury for which he was not responsible.

To rate a permanent impairment in the presence of a known, preëxisting defect, the use of "The Guide to Evaluation of Permanent Impairment," as set forth by the Committee on Medical Rating of the AMA, will be helpful in the segregation of the 2 deficits. It will not automatically provide a correct rating. To provide a proper rating, to comply with state law, or the Longshoreman Code, it must be interpolated. An example of a rating problem arises in the foot disability outlined above.

According to the Guide, a lower extremity is 30 per cent impaired by ankylosis of the ankle joint in a neutral position, which exists in our case and which is a preëxisting impairment. No mention of foot impairment between toe and ankle is given. Under the Longshoreman's and Harbor-workers' Compensation Act the injury in question must be rated as a foot impairment because, under the Act, injuries below the knee are rated as a foot (Paragraph 15, Section 8). In our case, following spontaneous ankylosis of the ankle as a result of the previous injury, the patient had developed mid- and subtalar motion as a compensatory mechanism and became able to use the injured foot with little or no difficulty, according to his own statement, and it is, therefore, reasonable to assume that prior to the second injury the patient had, by substitute movement of the mid- and subtalar joints, been able to achieve a 50 per cent improvement of the foot prior to the second injury. Using the Guide again, we find that there is a 6 per cent impairment of the lower extremity when impairment of inversion-eversion of the ankle joint is limited to 20 degrees, and this 20-degree inversion-eversion has been found by measurement to be present in our patient after the second injury. Such motion should not have been affected by ankylosis of the talus. We thus interpolate that at this time the patient has 21 per cent impairment of the ankle joint. As we have calculated, 15 per cent preëxisted the second injury, leaving us with a 6 per cent impairment as the result of the second injury. This seems a fair and reasonable estimate, and the patient will probably be awarded a 10 per cent disability of the foot, which comes to slightly more than 20 weeks of pay.

Another case, involving cold injury, is a bit more complicated yet even more interesting. A 35-year-old male, who had worked all his career as a meat cutter, had gone to work for a new employer after 6 months of no work. He worked for some 2 hours, rolling barrels in a refrigerator, when his hands became blanched, painful and swollen. Some 5 months have elapsed, and these hands are still swollen and painful. The man remains temporarily disabled. Examination has shown that, in addition to recent damage, this man's tissues are abnormally sensitive to cold.[6] Although he has denied vigorously any previous injury, his co-workers state that he frequently complained of painful, stiff hands before this injury. It seems clear this man deserves compensation until he recovers from his present injured tissues. The fact that he is cold-sensitive should not be a factor in the award of compensation. When his present injury has been controlled, his future employment can best be met by vocational guidance and rehabilitation. There are centers available for this purpose, and they should be used. It is true that he is not now able to engage in a vocation which exposes him to low temperatures, but neither was he prior to the injury. Thus, he has been restored to a status quo from a physical standpoint. The problem from an insurance standpoint is to return the man to the condition which existed prior to the injury. From a medical standpoint one must go further to help this patient overcome his handicap by re-training and education to prevent future injury. At the same time, it must be made clear that when the tissue injury has been restored to the condition present prior to injury there is no further compensation due the individual, and disability compensation must be stopped.

Difficulty in disability evaluation arises primarily with subjective complaints. Tenderness is a most difficult disability for one to give an objective opinion on. Lack of strength, again, is difficult to evaluate. The measurement of a muscle is objective; a dynamometer test also is objective but only to the degree with which the patient uses the machine. One must not delude himself that 80 lbs. grip, as demonstrated by an instrument, is the maximum the patient may be able to achieve. As an example, in a recent case, the loss of a finger was rated. A dynamometer test was requested. This testing showed that the involved hand had less grip than the normal hand. The patient was asked to grip with the normal hand, not using the finger which was involved on the injured side. When this was done, he had even less grip than in the involved hand due to the fact that he had achieved a muscle balance in the injured hand, whereas in the normal hand this balance could not be immediately obtained. It is clear that the dynamometer test may confuse the issue, and the rating should be considered as the loss of the finger. It is noted that in the Guide, furnished by the Committee on Medical Rating, disability is considerably higher than the schedules specified in the Longshoreman's Act as used in the District of Columbia and in other Government cases.

Workmen's Compensation cases are necessarily evaluated in the light of this discussion. These are simple compared to the evaluation of a similar injury where the laws of negligence play a factor. The history in such cases is usually detailed and often overstressed. It is difficult to render an accurate assay of physical impairment unless organic criteria are constantly kept in mind. The consultant will see the patient usually after the acute stage has passed, and he may be asked to assess, from the history, the degree of disability which has been present. To estimate disability which was present prior to his examination is manifestly an impossible task. The astute consultant will say that, at the time of the examination, there is this or that degree of organic evidence of disability. The physician may place himself in an awkward position unless he adheres to definite organic criteria for his estimation.

One of the most frequent liability problems confronting us today is the estimation of disability from whiplash injury. Until this term became popular most of these people were considered to have a strain of the neck. Treatment possibly was slighted in some individuals, but today the injury has come to be exaggerated by the patient because he has been led to believe that sequelae are inevitable and will come on years after the accident. This undue and overemphasis has caused considerable difficulty in the management of the injury.

CONCLUSIONS

Preëxisting impairment must be properly separated from the injury under consideration before an award, fair to both the injured and the insured, can be made.

(*Continued on page 622*)

DIPHTHERIA IN A SEVEN-YEAR-OLD CHILD WITH MYOCARDITIS AND NEUROLOGIC COMPLICATIONS

Report of a Case

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IN RECENT YEARS the incidence of diphtheria has dropped precipitously due to the marked effectiveness and universal acceptance of diphtheria-pertussis-tetanus vaccine as an important prophylaxis in enabling children to reach maturity safely. A recent communication with the Bureau of Disease Control of the District of Columbia Department of Public Health pointed this out effectively in a breakdown of their morbidity statistics for diphtheria in the District during the past 28 years.[1] The reported incidence of diphtheria, i.e., cases of proven diphtheria placed under quarantine and reported to the Disease Control Bureau, was as follows: 5,635 cases in years 1930 to 1939 inclusive; 450 cases in years 1940 to 1949 inclusive; and 14 cases in years 1950 through 1957.

Such statistics as these are extremely encouraging and would tend to suggest the erroneous conclusion that the population is protected. In actuality, serologic data would indicate that the adult population is very poorly protected. In a study in Massachusetts in 1954 the number of susceptibles in the adult population over 20 years of age was over 55 per cent.[2] This is the reverse of what could be found 30 years ago, with high susceptibility in children and low in adults.

Although the decrease in children may be ascribed to immunization, the decrease in adults is due to an almost complete disappearance of the reservoir of disease in children. Without this reservoir, adult immunity is not stimulated, and it may be anticipated that diphtheria will become mainly a problem of adults. Thus, morbidity figures may give a distinctly wrong impression of the safety of the population with regard to potential infection when an infectious disease such as diphtheria is controlled by immunization.

Due to the rarity of diphtheria in recent years in the District of Columbia, it was felt worthwhile to report a recent experience with the disease which occurred despite seemingly adequate protection and with resulting complications which were extremely severe.

REPORT OF CASE

A 7-year-old white boy was admitted to another hospital on February 1, 1958 with a 3-day history of sore throat, anorexia, temperature of 100.5° F, and a foul odor to the breath. Two days prior to admission the parents had taken the child to a local Health Department Clinic where the diagnosis of "infected tonsils" was made. A sulfonamide drug and a liquid medicine were prescribed. One day prior to admission the mother noted that the child had developed enlarged glands in the neck, refused to take anything by mouth,

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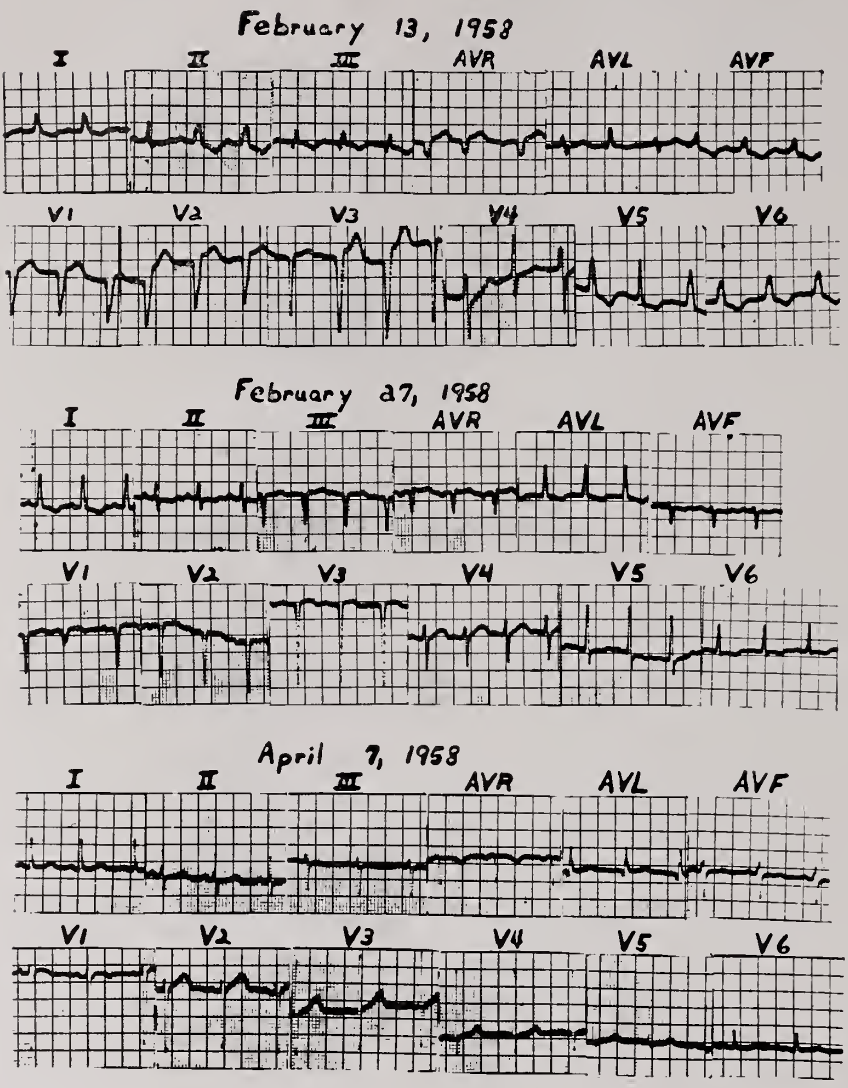

Fig. 1. February 13, 1958: Electrocardiogram taken at height of myocarditis as evidenced by cardiomegaly and presence of ventricular diastolic gallop, revealing left bundle-branch block and first degree heart block with a PR interval of 0.20 sec. February 27, 1958: Evidence of left ventricular ischemia as evidenced by a wide angle of 180° between QRS and T vector. April 7, 1958: Return of QRST angle to normal but with persistent left axis deviation which is nonspecifically abnormal in this age group.

including the prescribed medicine, and was listless. Because of the lack of improvement the child was brought to the hospital where he was admitted. The past medical history was of significance in that the boy was said to have received diphtheria-pertussis-tetanus immunization as an infant with a booster dose at the age of 4 years. He had also been vaccinated for smallpox and had completed a course of poliomyelitis vaccine injections. The patient had been hospitalized previously for bronchopneumonia at the age of 3 years. He had had measles, mumps, whooping cough, and chickenpox without sequelae.

Physical examination revealed an obviously sick child with a temperature of 100.5° F, blood pressure of 90/65, pulse rate of 100, and respiratory rate of 16. Positive physical findings were a thick, dirty-greyish membrane extending over both tonsils and the posterior wall of the pharynx, with a fecal odor to the breath. There were tender, enlarged, bilateral cervical nodes at the angle of the mandible; submental, anterior and posterior cervical, axillary and epitrochlear nodes were also present. The lungs were clear. A soft, grade II, systolic murmur was heard at the apex without any gallop, rub or cardiac enlargement. The liver and spleen were both palpable 2 cm. beneath the costal margins and slightly tender.

Laboratory work demonstrated a white blood cell count of 20,000 with 74 polymorphonuclears and 4 band forms. A few atypical lymphocytes were described. Urinalysis was unremarkable. Heterophil agglutination was 1:56 with a negative absorption for guinea pig kidney and beef cells. The antistreptolysin titer was 500 Todd units. A throat smear with Gram and methylene blue stain afforded no definite diagnosis. A throat culture grew beta hemolytic streptococcus, diphtheroids and hemophilus influenzae. Because of the finding of diphtheroids on blood agar, a culture was planted on Loeffler's media on the sixth and fourteenth hospital day, which was negative. Treatment was instituted with both aqueous and procaine penicillin. The next day chloramphenicol was added to the regimen and diphtheria antitoxin was given, 10,000 units intravenously and 10,000 units intramuscularly.

The patient continued to have a fever for the first 3 days in the hospital of not over 100°F. By the fourth day of hospitalization the membrane over the tonsils was described as curling up around the edges, while the uvula, which was now involved with a necrotic membrane, was described as edematous. The boy continued to manifest moderate dysphagia and hoarseness for the first 10 days of hospitalization but was considered to be improving. On the twelfth hospital day, just before the child was to be discharged from the hospital as a cured case of streptococcal pharyngitis, a routine physical examination revealed the presence of a diastolic third heart sound. An electrocardiogram showed left bundle-branch block (figure 1) and a chest X-ray film demonstrated an increase in the transverse diameter of the heart compared with the roentgenogram taken on admission (figure 2, A and B).

The patient was seen by one of us (B.J.W.), who interpreted the third heart sound as a ventricular diastolic gallop and made a diagnosis of post-diphtheritic myocarditis. A prolonged convalescence was predicted and on March 4, 1958 the patient was transferred to the Crippled Children's Cardiac ward at the District of Columbia General Hospital. At this time examination revealed a pale, apprehensive child who continued to manifest a prominent diastolic gallop rhythm which continued through the fortieth day of illness. Upon transfer it was noted that the boy had an obvious nasal speech with regurgitation of liquids while eating. This cleared gradually, but a nasal quality to the speech was apparent through the entire second month of hospitalization. On the thirty-third day of illness neurologic examination showed marked dilatation of the pupils, which responded to light but not to accommodation. There was paralysis of lateral gaze and moderate ptosis of both eyelids. Examination of the throat demonstrated an immobile soft palate with no nasopharyngeal closure and a poor gag reflex. The deep tendon reflexes in all extremities were absent. Cerebellar signs were present as manifested by past pointing, incoördination on heel to shin testing, and incapability of maintaining trunk or extremity balance. Evidence of a peripheral neuritis with marked muscle wasting of the distal muscles of the extremities continued to be present through the ninetieth day following the onset of the illness (figure 3).

The child is at present undergoing treatment by the Handicapped Children's Unit, Bureau of Maternal and Child Health, of the District of Columbia Department of Public Health, where in the fourth month following

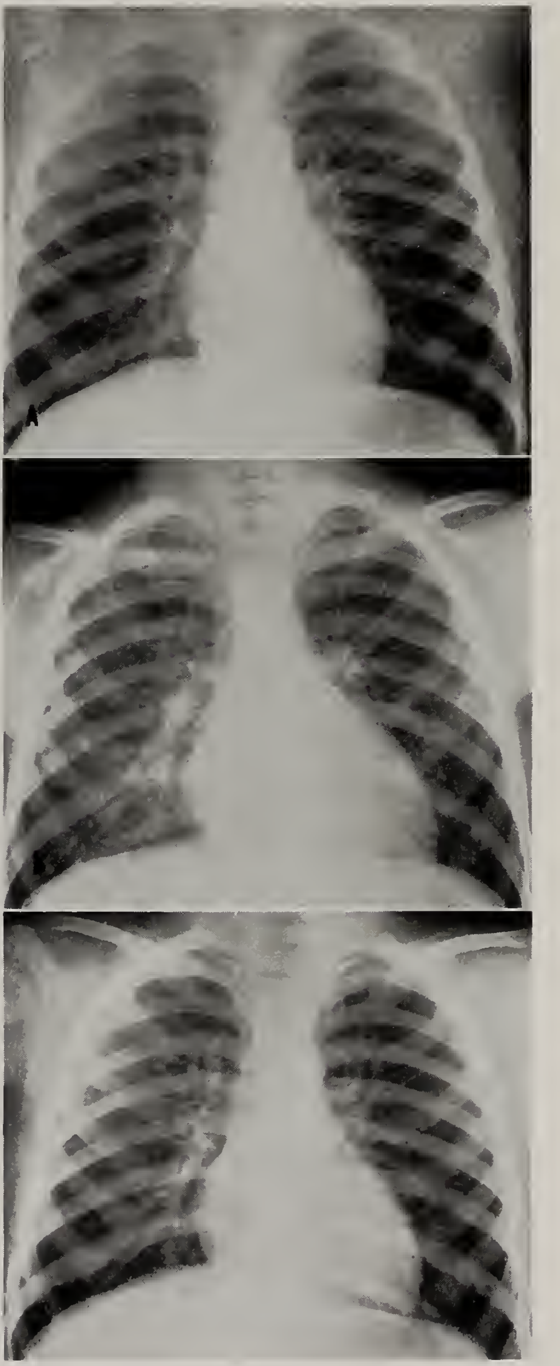

FIG. 2. (A) Chest X-ray film taken on February 3, 1958 2 days after admission, showing normal heart size. (B) Film taken 12 days after admission, demonstrating marked increase in heart size with moderate pulmonary congestion. (C) Film taken 94 days after admission, revealing a decrease in heart size but still slightly increased over the film taken on admission.

the onset of his illness he still manifests severe gastrocnemius muscle atrophy bilaterally with a calcaneus or dropped-heel gait and a mild abduction limp. There is moderate weakness of the right hip abductors and tensor fasciae latae muscle. Toe flexors are weak, more so on the left. There is also moderate atrophy of the thenar and hypothenar eminences of both hands, with weak grasp bilaterally.

The patient has been maintained on nonweight bearing and was fitted in May of 1958 with long leg braces with wedged heels to permit plantar flexion without dorsiflexion. Physiotherapy with active and passive muscle exercise has been instituted. The prognosis at present for complete return of muscle function remains guarded and will obviously demand long-term treatment of the type which the patient is presently undergoing.

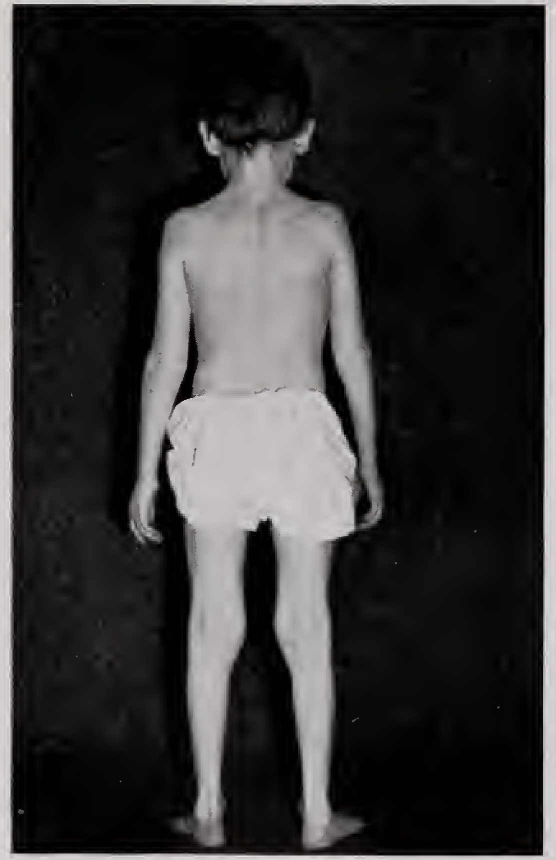

FIG. 3. Calf muscle atrophy 3 months after onset of illness.

The heart is still slightly enlarged after 3 months following the onset of the illness (figure 2-C), and the electrocardiogram (figure 1), although normal in other respects, still manifests left axis deviation, which in a child of this age group is nonspecifically abnormal. Only time will tell how much of these changes are due to myocardial fibrosis with permanent impairment of cardiac function.

DISCUSSION

Although some may say this case remains unproven by the rigid criteria of failure to culture *Corynebacterium diphtheriae* on Loeffler's media, the description of the throat on admission and the subsequent development of the rather classic complications of severe diphtheria would appear to prove the diagnosis in retrospect.

The development of the disease in its most severe form despite prophylactic immunization and the steady progression of all of the major complications despite early institution of diphtheria antitoxin are difficult to explain. A ready explanation affords itself to the skeptical in that the mother of a large family of 7 children might be mistaken in her belief that the child had already been immunized. Secondly, a dose of 20,000 units of diphtheria antitoxin, while adequate for mild cases, will not suffice for the more severe cases in which a dose of the order of magnitude of 100,000 units has been recommended.

Friedberg[3] states that acute myocarditis is said to occur in 10 to 25 per cent of cases of diphtheria, the incidence being particularly high in epidemics with severe forms of the disease. It is often associated with cranial nerve involvement. Wesselhoeft[4] noted a mortality rate of 11.3 per cent in a series of 15,490 cases of diphtheria; 59.4 per cent of these deaths were due to acute myocarditis. Electrocardiographic abnormalities are usually the earliest evidence of acute myocarditis. Altshuler[5] found such abnormalities in 24 per cent of 600 cases. The earliest change is a saucer-shaped depression of the ST segment, and by far the commonest change is a lowering or inversion of the T wave in 2 or more leads.

Although conduction disturbances are seen less commonly, they are more distinctive of diphtheritic myocarditis and imply a serious prognosis. Complete heart block has been considered characteristic, but prolongation of the PR interval and more severe grades of partial heart block have been described. Intraventricular conduction disturbances including bundle-branch block occur as commonly as complete heart block. In Begg's series,[6] both complete heart block and left bundle-branch block are ominous signs, since 8 of 12 patients with the former died and 4 out of 6 with the latter abnormality died.

In those patients who die of the myocarditis, cardiac shock, either from peripheral circulatory failure or cardiac damage, results in their exodus. Although congestive heart failure is usually associated with the shocklike state, it tends to play a secondary role.

With recovery the electrocardiographic abnormalities regress rapidly. Permanent heart damage is extremely rare. Thompson, Golden and White[7] reported a 24-year follow-up on 100 cases in which they failed to find a single case of what they could term diphtheritic heart disease. More recently Sayers[8] reported such a case in which permanent electrocardiographic abnormalities ensued following a severe attack of diphtheria. The patient developed intractable congestive heart failure 16 years later and died, revealing diffuse myocardial fibrosis at necropsy.

Our patient, although demonstrating marked electrocardiographic improvement, still manifests slight cardiac enlargement despite absence of murmurs or gallop rhythm, and his future as regards permanent heart damage remains in doubt.

Involvement of the nervous system in diphtheria may be polyradicular, peripheral, or mononeuritic. The incidence in various epidemics has ranged from 2 to 20 per cent and is most frequent in the younger age group.

The soft palate is involved in over three-fourths of the cases of diphtheritic neuritis, usually appearing 10 to 20 days after the onset of the illness. Optic neuritis, deafness, paralysis of accommodation, facial palsy, and paralysis of the phrenic, vagus and hypoglossal nerves have been noted. Polyneuritis may affect the proximal as much as the distal musculature and is followed by muscle tenderness. Ataxia and loss of position and vibratory sense occur early, particularly in the lower extremities. Defects in cutaneous sensation usually affect the distal parts of the extremities.

As a rule, the prognosis in diphtheritic neuritis is good. Recovery is usually complete in 3 months, although it may require 2 or more years.[9]

SUMMARY

The case of a child with diphtheria initially unrecognized has been presented, in which, despite protective immunization and institution of antitoxin, the patient developed severe cardiac and neurologic complications.

BIBLIOGRAPHY

1. Personal communication.
2. Ipsen, J., Jr.: Immunization of adults against diphtheria and tetanus. New England J. Med., 1954, **251,** 459; correction, 1954, **251,** 694.
3. Friedberg, C. K.: Diseases of the Heart, 2nd ed. Philadelphia: Saunders, 1956.
4. Wesselhoeft, C.: Report on medical progress; communicable diseases: cardiovascular disease in diphtheria. New England J. Med., 1940, **223,** 57.
5. Altshuler, S. S., Hoffman, K. M., and Fitzgerald, P. J.: Electrocardiographic changes in diphtheria. Ann. Int. Med., 1948, **29,** 294.
6. Begg, N. D.: Diphtheritic myocarditis; electrocardiographic study. Lancet, 1937, **1,** 857.
7. Thompson, W. P., Golden, S. E., and White, P. D.: Heart 15 to 20 years after severe diphtheria. Am. Heart J., 1937, **13,** 534.
8. Sayers, E. G.: Diphtheritic myocarditis with permanent heart damage. Ann. Int. Med., 1958, **48,** 146.
9. Baker, A. B., editor: Clinical Neurology. New York: Hoeber-Harper, 1955, **3,** 1622.

CHRONIC COR PULMONALE*

Part IV

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IN THE PRECEDING parts of this thesis the major forms of chronic pulmonary disease which may lead to cor pulmonale have been described. In this final section differential diagnosis and treatment will be considered.

Differential Diagnosis of Chronic Cor Pulmonale

One of the major problems in differentiation is to separate pulmonary emphysema with heart failure from congestive heart failure of other etiology with associated pulmonary congestion and edema. It is important to remember that the primary disease in emphysema is pulmonary, the abnormal hemodynamics being due to the structural changes in the lungs and to hypoxia. On the other hand, the changes in the lung in congestive heart failure secondary to hypertension or valvular disease are related to alterations in the pulmonary circulation. The characteristic change in the lung in the latter is a decrease in the compliance of the lung which is related to the increase in pulmonary vascular pressure, increase in pulmonary blood volume and pulmonary edema. As a result, the vital capacity and total lung capacity are decreased, whereas the residual volume is normal. Alveolar ventilation is adequate, and the carbon dioxide tension is normal or slightly reduced. Hypoxia may be present but is usually not severe unless pulmonary edema is marked.[13]

It has been mentioned that the patient with emphysema has a long history of dyspnea and cough. On physical examination it may be helpful to ascertain the depth of cyanosis. Characteristically, patients with emphysema and heart failure are deeply cyanotic, which has therefore given rise to the term "black cardiac."

While many patients with emphysema exhibit an increase in anteroposterior diameter of the chest, limited expansion and obliteration of the cardiac and hepatic dullness, these findings may be present in elderly patients without the physiologic abnormalities of pulmonary emphysema. Of some aid is the fact that the level of the diaphragm tends to be lower in the patients with emphysema than in those with pulmonary congestion and edema. Although the heart in emphysema with heart failure is enlarged, physical examination will not give good evidence of the increase in its size. For this reason a forceful apical impulse to the left of the midclavicular line almost excludes the diagnosis of cor pulmonale. Significant murmurs are usually absent, and auricular fibrillation is uncommon in cor pulmonale.[1]

It should be remembered that the roentgenographic picture of the lungs in pulmonary emphysema may not be diagnostic. The diaphragm is usually low in emphysema, whereas elevation of the diaphragm is common in pulmonary congestion and edema. The circulation time may be of some help in that it is shorter in patients with emphysema than in patients with heart failure related to hypertension or valvular disease.

Determination of oxygen saturation, carbon dioxide content and pH of arterial blood is of great aid if facilities for these determinations are available. In emphysema with heart failure the arterial oxygen saturation is reduced to a considerable extent, the CO_2 tension is elevated, and the pH is decreased to a variable degree. In contrast, in pulmonary congestion and edema the CO_2 tension is variable from normal to low, and the pH is normal or high. The decrease in O_2 saturation is variable, but often less than in emphysema. The CO_2 content may be high following mercurial diuresis.[1]

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* Editor's note: This is the concluding section of this monograph, a thesis prepared by the author for advancement to Fellowship in the American College of Physicians. Parts I, II and III were published in the August, September and October issues of the Medical Annals.

Polycythemia may be thought of as primary or secondary. Primary polycythemia, erythremia or Osler's disease is known as polycythemia rubra vera. Secondary polycythemia, or erythrocytosis, is usually due to chronic hypoxia. In a polycythemic subject the presence of dyspnea, in contrast to fatigue and lassitude, favors the diagnosis of erythrocytosis. Dyspnea is not a feature of erythremia. When there is dyspnea and cyanosis there must be arterial desaturation of an advanced degree. Lung disease and pulmonary hypertension are invariably present unless one deals with obvious venous admixture caused by veno-arterial shunts. Because the level of desaturation of arterial blood is approximately the same for the stimulus for erythropoiesis as it is for the onset of heart failure, these two frequently occur together, and one can safely assume that "cor pulmonale" is present when erythrocytosis is found in a patient with chronic lung disease.

Examination of the bone marrow may show relative hyperplasia only of the nucleated red blood cell series, in contrast to the hyperplasia of all cell elements found in true erythremia.

In erythremia (panmyelopathy) the oxygen saturation is normal. The patients are plethoric and reddish, not distressed and purplish. There is no electrocardiographic evidence of right ventricular hypertrophy, and there is no evidence of abnormal pulmonary function.

Clubbing of the fingers and toes may be seen in either type of polycythemia.

The presence of erythrocytosis and oxygen desaturation with normal lungs indicates the presence of a venous admixture syndrome. This may be congenital heart disease or pulmonary arteriovenous fistula or varix.[4]

Marks and Zimmerman[90] found the following conditions to simulate radiologically chronic cor pulmonale: atrial and ventricular septal complex, isolated pulmonic stenosis, idiopathic dilatation of the pulmonary artery, mitral stenosis, thyroid heart disease, heart failure, kyphoscoliosis, aneurysm of the pulmonary artery, age, and habitus.

Chronic cor pulmonale can and should be diagnosed clinically on the following criteria: (1) the presence of long-standing pulmonary disease without any associated cardiac disease, (2) the development of an increase in the dyspnea and cyanosis previously present, (3) the appearance of orthopnea with or without signs of right-sided failure, (4) an electrocardiographic pattern of right ventricular hypertrophy, (5) radiographic demonstration of right ventricular enlargement, and (6) the presence of increased pressure in the pulmonary circuit either implied or directly measured by intracardiac catheterization. The average normal pressure reading in the right ventricle and pulmonary artery is 25/4. In patients with chronic pulmonary disease, i.e., asthma with emphysema but without failure, the systolic pressure alone is heightened. When failure sets in, both the systolic and diastolic pressures rise, findings which are consistent with the diagnosis of cor pulmonale and right heart failure. An accentuated second pulmonic sound, often associated with pulmonary hypertension, is not pathognomonic of this condition. These considerations suggest that the earliest evidence of incipient cor pulmonale can be obtained only by direct measurement of pulmonary artery pressure, i.e., by cardiac catheterization.

TREATMENT

The treatment of chronic cor pulmonale must be considered in 2 phases. The first phase involves treatment of the underlying pulmonary disease, and the second is directed toward the management of the failing heart whenever this occurs. Obviously, careful and thorough management of the first phase should obviate the need for the second phase. However, many of the underlying causes of chronic cor pulmonale are not reversible, or are reversible only for a limited time, and the eventual demise of the patient from myocardial failure is not preventable.

Rational treatment of the first phase of chronic cor pulmonale entails a proper diagnosis because treatment should be as specific as possible. Thus it behooves the physician to have a working classification of the causes of chronic cor pulmonale to guide him. Fishman and Richards[2] divide the many forms of chronic pulmonary disease that have cor pulmonale as an important late complication into 3 groups:

A. Those with a critically diminished pulmonary vascular bed:
  1. Long-standing tuberculosis in the fibrotic stage, sometimes aided by excisional or collapse therapy
  2. Bullous or atrophic emphysema with much loss of lung substance
  3. Other forms of extensive conglomerate fibrosis as seen in silicosis
  4. Severe kyphoscoliosis
  5. Primary pulmonary hypertension
  6. Those with pulmonary emboli

B. Those with diffusion insufficiency, or alveolo-capillary block:
  1. The granulomatoses: sarcoid, berylliosis
  2. Scleroderma of the lung
  3. Hamman-Rich syndrome and other forms of alveoloseptal fibrosis
  4. Adenomatosis or "alveolar-cell" carcinoma

C. The group of high output failure, composed chiefly of cases of diffuse obstructive emphysema, so-called inhomogeneity of alveolar ventilation and perfusion:
  1. Ayerza's syndrome
  2. Chronic obstructive emphysema.

GENERAL MEASURES IN MANAGEMENT OF THE FIRST PHASE

Treatment of infections. Infection is the most frequent precipitating cause for acute anoxia and diminished alveolar ventilation in patients with chronic emphysema. Infection increases alveolar exudates and secretion and produces inflammatory edema in the bronchial system and bronchospasm. It should be emphasized that one should not wait for the full-blown clinical picture of pulmonary infection before starting antibiotic therapy. Any acute or unexplained exacerbation or shortness of breath, cyanosis, cough, or wheezing should make one suspect the presence of pulmonary infection.[91] One need not wait for the appearance of fever or signs such as pulmonary rales.

One may use penicillin or the blood-spectrum antibiotics; dosage and duration of treatment are individualized. It is often wise to use continuous moderate doses of oral antibiotics.

Effective treatment of respiratory infection may reduce bronchial obstruction and improve ventilation of functioning alveoli. This, in turn, may lead to an increase in oxygen saturation of the arterial blood, a decrease in the pressure in the pulmonary artery, and disappearance of the threat to cardiac decompensation.

Use of bronchodilators. Bronchodilator drugs are helpful. These can be given conveniently by means of a nebulizer, and either Isuprel or epinephrine may be effective. The technic of administration is important and has been described by Miller.[92] Dack[91] prepared a table which outlines the various bronchodilators (table 2).

Evacuation of secretions. Rapid elimination of secretions is important because the material may obstruct airways and harbor infectious microörganisms. Viscosity and quantity of sputum may be decreased by surface-tension lowering aerosols such as tergitol with potassium iodide.[93]

A pus-liquefying enzyme (Dornase) is used for patients with bronchial infection, bronchiectasis, or viscid and tenacious mucopurulent secretions.

Steroid therapy. The use of adrenocorticoid steroids (cortisone, ACTH and prednisone) has been found to be very effective in patients with cor pulmonale associated with bronchospasm and status asthmaticus. These drugs reduce bronchospasm and inflammatory edema, with resultant increased alveolar ventilation, reduction in hypoxia, and improved cardiopulmonary function. Prednisone and prednisolone are preferable to the earlier available commercial preparations, since their use is not accompanied by excessive sodium and water retention and weight gain. The newer preparation of Solucortef is excellent for intravenous and intramuscular use, when needed in emergencies.

TABLE 2

Bronchodilators in the Treatment of Alveolar Hypoventilation (Particularly Emphysema)

A. Aerosol therapy:
  1. Compressed air or oxygen
  2. Hand nebulizer
  3. Vasonephrin or Isuprel
  4. Detergents (Alevaire)
B. Oral therapy:
  1. Ephedrine
  2. Aminophyllinate
  3. Choline theophyllinate
  4. Sedation
  5. Combination of above
  6. Steroids (asthma), such as prednisone
C. Sublingual—isopropylarterenol and similar agents
D. Rectal therapy
  1. Aminophylline suppositories
  2. Aminophylline rectal instillation
E. Parenteral therapy:
  1. Aminophylline, intravenous or intramuscular
  2. Adrenalin
  3. Isuprel
  4. Steroids (asthma), such as ACTH and hydrocortisone

Since steroids may mask the signs of pulmonary infection, combined steroid and antibiotic therapy is indicated in most cases, particularly for long-term administration.[91]

Oxygen therapy. Ebert[13] stated the case for oxygen therapy as follows: Hypoxia in patients with severe emphysema appears to be responsible, at least in part, for the cardiac complications, which, if they become severe, may lead to death. Hence, the use of oxygen in patients with severe emphysema and hypoxia appears logical. Unfortunately, the administration of oxygen may be accompanied by depression of ventilation with increasing stupor and finally coma. These changes are associated with a rise in the carbon dioxide tension and a fall in the pH of the arterial blood. This decrease in ventilation is related to the removal of the hypoxic stimulus to breathing, which has become the major driving force for respiration. Carbon dioxide becomes a relatively ineffective stimulus to breathing in the patient with severe emphysema. Because of this complication, oxygen must be used with great caution. If oxygen is administered, the patient should be carefully observed to determine whether his level of consciousness improves. If he becomes more stuporous, the use of oxygen should be stopped, or, if it needs to be continued, mechanical assistance to breathing should be instituted. Either an intermittent positive pressure device, such as the Bennett apparatus or a tank respirator, may be used. The patient must be carefully observed. He is often confused and irrational and will fight the respirator, and for this reason the therapy may be ineffective in improving ventilation. Such a complication may occur in about 10 per cent of cases with advanced emphysema.[91]

With respect to therapy, it is particularly important to note that, in patients with cor pulmonale secondary to chronic obstructive pulmonary emphysema, the total effects of the potentially reversible chemical stimulus of hypoxia probably play a greater role in eliciting pulmonary hypertension than do the irreversible anatomic alterations of the vascular bed.[2]

In the more severe degrees of hypoxemia and hypercapnia, with depressed respiratory center, mechanical aids to respiration will be needed. The simplest are the various forms of intermittent positive pressure respirators, such as the Bennett. the Emerson, the Mine Safety appliance, and similar forms. Some of these require the patient's own spontaneous inspiratory effort to start the inspiratory cycle. The administration of high oxygen to such patients may deprive the patient of the low-oxygen respiratory stimulus and result in sudden apnea;

these hypercapnic patients require either an apparatus that cycles automatically or else the substitution of a compressed air tank for the oxygen tank.

When treatment is begun, these types of artificial respiration should be used for the greater part of the day; the optimal duration and the effectiveness of treatment may be gauged after temporarily discontinuing the respirator from arterial blood analyses for gaseous composition and hydrogen ion concentration. In time, as the other therapeutic measures take effect, and as hypoxemia and hypercapnia are somewhat relieved, briefer periods of respirator treatment will be required, e. g., periods of from ½ to 1 hour, at regular intervals throughout the day.[2]

In the most extreme situations, the tank respirator of the Drinker type may be required, generally for a few days, but sometimes as long as 2 to 3 weeks. In this situation the ancillary measures are continued, and pure oxygen, and even sedatives, may be administered, since breathing is automatically regulated. The use of the tank respirator requires expert nursing care; withdrawal from the respirator is based on evidence of clinical improvement coupled with restoration toward normal of the arterial blood gaseous composition.

Arnold and Carabasi[94] strongly urge the use of expiratory positive pressure oxygen therapy in chronic pulmonary disease. They believe that the benefits obtained from this technic are due to relief of hypoxia, greater bronchial dilatation, more effective bronchial and lymphatic drainage, and the establishment of collateral respiration through interalveolar pores.

Use of Diamox. Heiskell et al[95] found Diamox to be an orally effective carbonic anhydrase inhibitor, useful in the treatment of patients with chronic emphysema. They found the venous plasma carbon dioxide combining power to decrease about 6 mEq. per liter during therapy, and this coincided with a remarkably increased exercise tolerance, decreased dyspnea, and statistically significant improvement in performance of pulmonary function tests. Diamox acts as a diuretic having a direct effect on the kidneys and causes loss of water, sodium potassium and bicarbonate, which has a salutary effect on the management of hypercapnia. It seems to exert a direct stimulating effect on the respiratory center and to impove alveolar ventilation. Also, by its renal effect it causes some loss of serum bicarbonate.

To be effective Diamox must be given in fairly large doses intermittently for short periods, such as 0.25 to 1.0 Gm. daily for a period of 4 to 5 days, alternating with a free period of several days. Some investigators have found this drug disappointing.

Phlebotomy. Repeated small phlebotomies may prevent or reduce congestive failure in chronic cor pulmonale. The hematocrit is the best guide to the indication for, and frequency of phlebotomy. This is indicated if the hematocrit is over 50, and an attempt should be made to maintain it between 45 and 50.

The fall in cardiac output following venous congestion of the legs has been attributed to a decrease in right arterial pressure. In a study of cardiohemodynamics in man,[96] as measured by intracardiac catheterization, patients with cor pulmonale (with or without failure) had a fall in cardiac output during venesection or venous occlusion. However, patients with congestive failure due to hypertensive, coronary or valvular disease usually had a slight rise, occasionally no change, or, rarely, a slight fall in output.

SPECIFIC MEASURES FOR GROUP A

Unfortunately, little as yet is known about the circulation in the pulmonary fibroses. In patients with pulmonary fibrosis, as well as those with granulomas of the lung, it would appear that the anatomic pulmonary lesion is chiefly responsible for the pulmonary hypertension, in contradistinction to patients with emphysema. Inasmuch as the anatomic lesions are for the most part irreversible, so is the pulmonary hypertension. This has limited the therapeutic approach in this form of chronic cor pulmonale to rigorous restriction of physical activity directed at minimizing exacerbations of pulmonary hypertension.[14]

In "primary" pulmonary hypertension, the cause of the hypertension is unknown, and the disease continues on a relentless, downhill course. The role of vasodilators (Priscoline, hexamethonium, etc.) is not established. Halmagyi et al[97] found that the parenteral administration of 1 mg. of reserpine effectively lowered pulmonary arterial pressure in subjects with pulmonary hypertension due to mitral stenosis and ventricular septal defect. Brill[1] states that sympathectomy and vagotomy may have some merit.

In patients with repeated pulmonary emboli the process may be arrested, if suspected, by long-term anticoagulant therapy, or, if applicable, by vein ligation.

The patients in group A usually go for many years with symptoms of progressing ventilatory insufficiency, chiefly dyspnea. Eventually, often at the stage when hypoxia has become more marked, ankle swelling, with or without other evidence of congestive failure, begins. The next stage is that in which an intercurrent respiratory infection precipitates an acute episode of right heart failure. The patient may persist in this stage, going in and out of heart failure with each respiratory infection for months or years. Ultimately, if the patient survives the acute episode, there evolves the later stage of permanent extreme hypoxia, intermittent carbon dioxide retention, and chronic congestive failure.

This group has a normal or low cardiac output in the compensated stage of cor pulmonale, with a further decrease as heart failure supervenes and becomes chronic.

SPECIFIC TREATMENT OF GROUP B

Most of the general statements made above can be applied. In advanced cases oxygen therapy usually has to be given continuously and in higher concentrations. An important special measure in the granulomatoses is steroid therapy. This is sometimes dramatically successful, restoring patients to nearly normal physical activity.

Pulmonary artery pressure and right ventricular work are uniformly elevated in individuals with diffusion insufficiency at rest. Any further increase in pulmonary blood flow leads to an exponential rise in right ventricular work.[11] In the face of unalterable anatomic vascular changes, one must resort to purposeful physiologic alterations in order to achieve real therapeutic benefit for such patients. In patients who manifest diffusion insufficiency only when exertion demands an elevation of pulmonary blood flow, limitation of activity below such levels will prevent recurrent episodes of increased right ventricular work that may eventually lead to right ventricular failure.

Less fortunate are those with diffuse insufficiency at rest. The only alteration which could aid these latter individuals would be a lowering of pulmonary blood flow. As pulmonary blood flow is reduced, the patient benefits doubly, because (1) as a perfusion of the capillary bed may proceed at a slower velocity, more adequate contact time is allowed between alveolus and blood for diffusion of oxygen, and (2) simultaneously pulmonary artery pressure and right ventricular work are decreased.[11]

Luchsinger et al[11] offer 3 possible ways to reduce pulmonary blood flow. The first method is the imposition of marked restriction of bodily activity. This reduction of such individuals to invalidism is currently the only course offered to patients by the physician. A second approach is the utilization of certain hypotensive agents which can bring about a lowering of the cardiac output. A third avenue of approach would be the use of such agents as radioactive iodine in an attempt to decrease requirements of cardiac output.

SPECIFIC TREATMENT OF GROUP C

As the causes of cor pulmonale in these cases, in contradistinction to those previously described are largely chemical and dynamic, and not anatomically fixed, treatment is often remarkably successful in bringing the circulation back to normal. Pulmonary function should be treated according to the general principles already stated. Restlessness and even belligerence may reflect carbon dioxide retention; particular care must be exerted to avoid the use of sedatives which may depress the respiratory center (especially morphine), since their use entails the hazard of further increasing carbon dioxide retention and promoting narcosis. Special effort should be directed toward opening and clearing the air passages. Acute airway obstruction may require suction. The bronchodilator aerosols vaporized from an oxygen tank or motor blower, and inhaled for 10 minutes systematically 3 or 4 times daily, should be a basic routine. After each treatment the patient should be encouraged to cough and raise sputum. Steroids in small doses, particularly prednisone, have been of benefit in some patients with refractory bronchospasm. As airway obstruction and hypoxemia are relieved, the work of breathing decreases and dyspnea generally becomes less troublesome. Oxygen therapy is usually indicated but must be given cautiously to avoid further carbon dioxide retention and carbon dioxide narcosis; oxygen administration through a nasal catheter at 3 to 5 liters per minute may be sufficient to maintain virtually normal arterial oxyhemoglobin saturations.[2]

Some procedures have become rather standard in the management of chronic emphysema. These include breathing exercises, abdominal binders, sleeping in the head-down position, and artificial pneumoperitoneum.

In emphysema it is possible to reverse 2 features of the pulmonary insufficiency, anoxia and carbon dioxide retention, which are of paramount importance in producing the salient circulatory complications, that is, pulmonary hypertension, hypervolemia and right heart failure. By vigorously combating anoxia and hypercapnia, it is possible to reverse these circulatory abnormalities and prevent their recurrence. If the premonitory signs of increasing anoxia and hypervolemia are heeded and proper therapy instituted, it may even be possible to prevent an initial episode of heart failure in the emphysematous subject.[14]

MANAGEMENT OF THE SECOND PHASE, CONGESTIVE HEART FAILURE

It is important to remember that in the early stages of heart failure due to cor pulmonale, unlike any other type of congestive failure, the myocardium is not significantly damaged and the heart failure is reversible. If compensation is restored during this stage the heart may remain compensated for many years with proper measures directed to the heart and lungs.

As in the other forms of heart failure, the treatment of the congestive state includes a period of bed rest; however, it must be stressed that prolonged inactivity and quiet breathing promote stagnation of bronchial secretions. In these patients the ventilatory insufficiency, which, in turn, contributes to heart failure, may improve considerably following the resumption of mild activity and the deliberate increase in respiratory movements.

There has been a great deal of controversy in the past as to the advisability of digitalization in cor pulmonale. This stemmed from the failure of digitalization alone to improve cardiopulmonary function in many cases. It also was argued that since the cardiac output is already increased in some cases there was no indication to give digitalis. However, there is ample laboratory and clinical evidence that digitalis is distinctly helpful in increasing cardiac output and actually lowering the right ventricular end-diastolic pressure.

In a clinical conference DeGraff[98] stated that in treating cor pulmonale rapid digitalization is apt to produce an increase in the pulmonic arterial pressure, in which case the patient becomes worse. On the other hand, if digitalization is done slowly, eventually a good therapeutic effect from digitalis is obtained. However, I think that one should be extremely careful not to give anywhere near the toxic dose in these cases.

The beneficial effects of digitalization have also been amply demonstrated clinically following long-term administration of digitalis in patients with right heart failure. In patients with cor pulmonale the heart rate is not a good guide to the need for digitalis and to the dosage required for full digitalization, because the heart rate may be increased by anoxia as well as by heart failure. Thus, tachycardia may be present in the absence of heart failure and may persist even after full digitalization, so that toxicity may easily occur if the dosage is pushed too far.[91] Another practical point stressed by Dack is that congestive failure in cor pulmonale may develop even in the presence of an apparently normal heart size.

Other measures of cardiac therapy include low-salt regimen and diuretics. Phlebotomy of 500 c.c. is of value when the congestive state is definitely established, with enlarged liver, etc., and when the hematocrit is elevated.

In the rather uncommon late development of peristently elevated carbon dioxide, Diamox may be used. After recovery from heart failure, less drastic forms of respiratory aid, including breathing exercises, head-down position, etc., may be helpful, or the patient may continue indefinitely with a program of mechanical respirator 2 or 3 times a day, plus a bronchodilator.

Finally, from the point of view of therapy, the identification of a component of left ventricular failure in a patient with cor pulmonale and right heart failure is relatively unimportant, since both types of failure respond well to cardiotonic programs which include salt restriction, digitalis, and diuretics, as well as the general measures which are employed in the treatment of cor pulmonale.

BIBLIOGRAPHY

90. Marks, M. O., and Zimmerman, H. A.: Am. J Roentgenol., 1951, **66**, 9.
91. Dack, S.: New York J. Med., 1957, **57**, 74.
92. Miller, W. F.: New England J. Med., 1954, **251**, 589.
93. Segal, M. S., Goldstein, M. M., and Attinger, E. O.: Texas J. Med., 1957, **53**, 137.
94. Arnold, W. O., and Carabasi, R. J.: J.A.M.A., 1954, **155**, 1329.
95. Heiskell, C. L., Jr., Belsky, J. B., and Klaumann, B. F.: Ibid., 1954, **156**, 1059.
96. Judson, W. E., and others: J. Clin. Invest., 1955, **34**, 614.
97. Halmagyi, D., Felkai, B., Czipott, Z., and Kovacs, G.: Brit. Heart J., 1957, **19**, 375.
98. DeGraff, A. C.: Circulation, 1954, **9**, 115.

President's Page

THE CORPORATE PRACTICE OF MEDICINE

Hand in hand with scientific advances in medicine there have been tremendous social and economic changes. Corporations have become involved in medical practice and challenged some of our profession's most cherished traditions. Misunderstandings have arisen because the courts have repeatedly declared the corporate practice of medicine illegal; yet it is well known and accepted that corporations in every state hire physicians to practice medicine and through them furnish medical care to a large portion of the American people.

Industry's infiltration into medical economics originated in the employment of physicians to provide medical care for workers in areas where none was available, as occurred when the transcontinental railroads were laid in the second half of the nineteenth century. This was followed by the building of hospitals for railroad men, miners and lumbermen in remote regions. The establishment of facilities and provisions for medical care for workers and their families had its inception from necessity but proved a sound economic policy as an inducement to applicants and in keeping workers on the job. These programs were given further impetus by the Workmen's Compensation Act, which places responsibility on the employer for medical care to the injured employee.

In the controversy which has developed, public and community hospitals as well as industry have come under attack. State attorneys general have divided on the issue, but several have found that long-established practices are in violation of the corporate practice rule. With the many technical advances and complex procedures as well as numerous innovations and developments in the medical economics of medicine, some courts have tried to adapt to the social changes. In general, their decisions have been made on the basis of whether a corporation is truly nonprofit in character, operated by motives of service, purposing to provide wider distribution of good medical care.

Failure to distinguish between the art of medicine (diagnosis, prescribing and treatment) and the economics of medicine (payment for medical services) tends to cloud the issues. The responsibility for independent medical decisions should and must remain in the hands of trained and licensed physicians. Financial arrangements between the doctor and the patient or the doctor and the third party must be worked out in a manner which is mutually satisfactory. It is in this category where some compromise will have to be made, for we must recognize that the third party and the free practice of medicine represent two diametrically opposed philosophies.

This seemingly simple but deceivingly complex problem will require patience and intensive study by the best lay, medical, and judicial brains.

James W. Watts

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Editorials

WHO IS DELINQUENT?

In every community there appear in the juvenile population individuals who are mentally deficient or who exhibit strong antisocial behavior and, therefore, must be temporarily or permanently segregated for the protection of themselves and society.

Concerning the mental defectives, in our present deficient state of knowledge there is little optimism for complete rehabilitation, and permanent institutional care is the usual prognosis in seriously impaired defectives, since private financial and social resources are seldom capable of managing the multiple problems that arise. On the other hand, with reference to the so-called "juvenile delinquents" in whom there is no overt evidence of irreversible cerebral dysfunction, there is every hope that adequate rehabilitation measures will convert these unfortunate adolescents into citizens who will be community assets rather than community

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

liabilities. It should be recognized that the institution of adequate preventative and rehabilitative measures constitutes not only humanitarianism but an actual vital measure of social economy. The myopic deficiency in our present management of such cases is demonstrated by the fact that too many juvenile delinquents outgrow their classification and graduate to the ranks of thieves, alcoholics, drug addicts, social deviates, and, in many instances, permanent welfare recipients.

In the District of Columbia, as elsewhere, custodial care assisted by the administration of ataractics can at best only temporarily alleviate the social problem of an institutionalized juvenile delinquent, who, although for his own good is separated from temptation and for the good of society prevented from succumbing to it, cannot be so maintained for life. The hope that a spontaneous evolution will occur in the direction of normal social behavior is more often than not a vain one, since antisocial behavior may be either more deeply confirmed or even aggravated in an institutional environment. However uncertain the results, adequate mental hygiene and other therapeutic measures are the best that modern medicine can offer and certainly should be made available. Unfortunately, lack of organization and budgetary restrictions leading to difficulty in recruiting psychiatric and other personnel are the principal factors which prohibit the establishment of a realistic therapeutic program.

At the present time many District departments and agencies are individually concerning themselves with emotionally disturbed children and adolescents. For example, the Juvenile Court has found it necessary to ask for the assistance of psychiatrists and clinical psychologists. The Board of Education has proposed that special facilities be provided for emotionally disturbed children; the Department of Health has drafted an extensive mental health program including a considerable proportion devoted to problems of children; and, finally, the Department of Public Welfare operates both a Receiving Home and a Children's Center which provide around 1,800 beds, approximately equally divided between delinquent and emotionally disturbed or emotionally retarded children.

In addition to the above, many non-governmental community organizations and agencies are performing needed services, but on an individual basis; any integration and coördination that may exist in the entire spectrum is largely coincidental. The gravest misfortune of all is that no one of these programs is sufficiently comprehensive or adequately supported to accomplish more than a token approach to the overall problem. Another serious shortcoming in the management of this social problem is the absence of adequate provision for follow-up care and treatment. There are neither adequate psychiatric clinics to which these people can be referred nor sufficient supervision to insure that they take advantage of those rehabilitative measures available.

Under such circumstances, considering that most individuals confined for juvenile delinquency must return unsupervised to an inadequate home situation and environment, one cannot expect that these young persons will conduct themselves in a manner that will conform to acceptable community morals and ethical principles unless by chance maturity may relieve them of the emotional turbulence of their adolescence. It would certainly seem logical to establish a community-wide plan embodying District responsibilities and integrating all available resources to cope with this increasingly pressing problem. Since emotional disturbances precipitating antisocial behavior are most likely to become manifest in the school society, it would seem logical to organize case-finding efforts in the Department of Education. A preliminary psychiatric evaluation should be conducted in a Health Department outpatient clinic. In cases of serious antisocial behavior, including those appearing before the courts where more elaborate studies are required, hospital observation must be resorted to.

Should institutionalization for rehabilitation be indicated, considering existing community facilities, the logical agency would be the Children's Center at Laurel, assuming that therapeutic facilities far more adequate than those currently available could be developed. The same clinics previously proposed for evaluating disturbed children should also be available for continued outpatient care for those discharged from institutions as well as for those whose problems were never so severe as to require institutionalization. Finally, the private agencies and funds now available should be utilized to assist those ineligible for indigent care and for independent psychiatric research.

Jack Kleh, M.D.
Wilfred Ehrmentraut, M.D.
Joseph F. Fazekas, M.D.

AAAS MEETS IN WASHINGTON

The American Association for the Advancement of Science will hold its 125th meeting this year in Washington, D. C., December 26 to 31, inclusive. This will be the seventh time since its organization in 1848 that this largest and most influential group of related scientific organizations in the world has met in the Nation's Capital. Eighteen sections of the AAAS and 92 scientific societies and organizations will take part in the program, which lists approximately 1,500 papers reporting recent advances in scientific research and development in all branches of science from astronomy to zoölogy. During the last week of December Washington will be the world center for news covering recent advances in science. Scores of science writers representing world-wide news services will cover this meeting.

Of particular interest to members of the medical profession will be the address on Medical Genetics by Dr. Laurence H. Snyder, President of the University of Hawaii, who is immediate Past President and Chairman of the Board of Directors of AAAS; also the symposia on Research Support in the Health Sciences, Sociological Studies in Mental Disorder, Controversial Areas in 20th Century Criminology, Calcification in Biological Systems, Biochemical Studies in Schizophrenia, Hallucinations, Criteria for Admission to Medical and Dental Schools, and Space Medicine. The Section on Medicine of the AAAS, with the endorsement of the American Heart Association and the American College of Cardiology, and supported in part by a grant from the National Heart Institute, will hold an outstanding 4-session Symposium on Congenital Heart Disease, during which 21 papers will be presented by topflight specialists in cardiology (see page 613 of this issue).

Physicians will be interested too in a showing for the first time of a new, much improved closed-circuit color television. A special demonstration will be given for members of the medical profession in the Ballroom of the Sheraton-Park, headquarters hotel. The American Society of Zoölogists, the AAAS Sections on Chemistry and Psychology, and other scientific groups which are participating will present papers of interest to physicians.

Six $1,000 awards and one $1,500 award for outstanding investigative work in various scientific fields will be announced. Three of these will recognize research in the field of medicine; they are the Theobald Smith Award in Medical Sciences, the AAAS-Anne Frankel Rosenthal Award for Cancer Research, and the AAAS-Ida B. Gould Memorial Award for Research on Cardiovascular Problems, three of the highest awards in American medicine.

There will be many programs of general interest, such as the 3-session Symposium on Results of the International Geophysical Year, the Phi Beta Kappa-Sigma Xi Lecture (Dr. James R. Killian, Jr.), and the Annual Lecture and Film of the National Geographic Society by Dr. Paul A. Siple. Dr. Siple's illustrated address on "Winter at the South Pole" will attract a large audience on Tuesday evening, December 30, in the Sheraton-Park Ballroom. Dr. Raymond T. Birge, Emeritus Professor of Physics at the University of California, retiring Vice President of the AAAS Section on Physics, will speak on "Science, Pseudo-science, and Parapsychology," December 29. His address is one of 30 by officers of the AAAS Sections and societies participating.

The AAAS Annual Exposition of Science and Industry will be one of the best in years. More than 100 booths will feature exhibits by industries, research laboratories (commercial and academic), publishers, instrument companies, supply houses, and Government agencies. It will fill the large exhibit hall of the Sheraton-Park Hotel and will be open from the evening of December 26 through the afternoon of December 30. The AAAS Science Theatre will show the latest foreign and domestic scientific films, a number of which will be on medical subjects.

Schedules of all papers to be presented and of all other events will be published in the General Program-Directory. A filled-out advance registration coupon, which may be clipped from *Science* magazine or requested from the headquarters of the Association, 1515 Massachusetts Avenue, N.W., Washington 5, D. C., will bring the registrant this 400-page book. The registration fee is $3.00.

Sidney S. Negus
Director of Public
Information, AAAS

THE SAINT GEORGE SOCIETY

Dragons are still with us in many disguises. It is therefore stimulating to report that the students of the three medical schools of Washington, Georgetown, George Washington and Howard, have united under the banner of St. George, the classic dragon slayer, in a coöperative attack on cancer through an organization known as the Saint George Society. The Society was developed in 1956 as a part of the professional education program of the local Cancer Society, with the approval and support of the Dean of Medicine in each of the schools. Organized as the first of its kind in the United States, it was given official recognition by the American Cancer Society at its annual meeting in 1957.

The Saint George Society will attack the "dragon" with a three-pronged spear, by means of which it will (1) stimulate interest in the various aspects of cancer; (2) supplement classroom teaching on cancer by arranging for outstanding authorities in the field to meet with student groups on an inter-school basis; and (3) acquaint students with the programs and facilities of the American Cancer Society.

Membership is open to all students enrolled in the three medical schools. Members are expected to attend a majority of meetings held during the school year, including the lecture series presented by guest speakers and special programs arranged by each school committee.

Among the advantages and opportunities which the Society offers members are cancer fellowships during the summer, leadership through holding office and by assignment to committees, meeting leaders in the cancer field, and securing the latest information on developments in cancer research, diagnosis and treatment.

The officers of the Society are divided among the three schools, with the President, Fred Downey, from George Washington; Program Chairman, Michael Mehr, from Georgetown; and Herbert Gross, from Howard, as Secretary-Treasurer. There are also three Vice Presidents, one from each school.

The Society is sponsoring a program of a very high order for 1958–59. It began in October with a symposium at Georgetown on Bone Tumors, presented by Drs. Murray M. Copeland and

Charles E. Geschickter, of Georgetown, and Dr. Robert A. Robinson of Johns Hopkins. On the first Wednesday in December the program will be held at Howard University, with members of its medical staff, Drs. Robert Jason, Burke Syphax and R. Kelley Brown, discussing "Cancer of the Colon and Rectum." Other eminent speakers in the field of oncology who will appear on programs during the school year are Drs. William Dameshek, Joe Vincent Meigs, and Shields Warren, all of Boston, and Dr. John R. Heller, Director of the National Cancer Institute. Sponsor of the program for 1958–59 is Dr. J. Keith Cromer, Chairman of the Professional Education Committee of the District Cancer Society.

This type of coöperative endeavor is truly in accord with Section 2 (slightly paraphrased) of the Principles of Medical Ethics: "Physicians should strive continually to improve medical knowledge and skill, and should make available to medical students the benefits of their professional attainments."

A. L. E.

In and Out of Focus

BY THE OBSERVER

Licensure Law Defended

For more than a year the Society's Committee on Public Policy has had before it drafts of a new Healing Arts Practice Act for the District of Columbia sponsored by Mr. Oliver Gasch, United States Attorney for the District of Columbia.

The Committee was at first reluctant to act on the proposed legislation, but Mr. Gasch was insistent that the Society take a position, one way or the other. It was early in the past summer that officers of the Society conferred with Mr. Gasch at his request. Everyone present on this occasion was in agreement that it was time the Committee made up its mind. Subsequently, the Committee scheduled a meeting to be held later in the year to which several interested parties were to be invited.

The meeting was held on September 8. Present on that occasion, in addition to the Committee, were Mr. Gasch; Mr. E. Riley Casey, Assistant United States Attorney; Mr. Warren E. Magee, the Medical Society's legal counsel; Commissioner David Karrick; Dr. Daniel L. Finucane, Director of Public Health; Mr. Leo Rover, Chief Judge, Municipal Court of Appeals; Mr. Paul Donelan, of the AMA's Washington office; Drs. Henry C. Macatee and Wyrth Post Baker, representing the District's Board of Medical Examiners; Dr. James P. Leake, Chairman of the Basic Science Board; Dr. W. LeRoy Dunn, President-elect of the Medical Society; Mr. Robert T. Kneipp, Assistant Corporation Counsel; Dr. Herbert P. Ramsey, Chairman of the Medical Society's Executive Board; and Dr. James W. Watts, President, and Theodore Wiprud, Secretary, of the Society.

Nearly everyone present was heard from. Before the evening was over it was apparent that the majority was opposed to substituting a new Healing Arts Practice Act for the present one. Mr. Gasch's position was that the present Act was archaic and could not be brought up to date by amendments. Those in opposition pointed out that the introduction of a new law was fraught with the danger that amendments which would drastically lower requirements for licensure might be introduced and passed. They insisted that the present law, which has been in effect for 30 years, has effectively protected the people of the District from inadequately trained practitioners of the healing arts.

There was no definite decision reached at this meeting. The Chairman, Dr. William H. Cooper, announced that further consideration would be given to the proposed Act at a later meeting. The Committee met again on September 22, and at that time voted to recommend to the Executive Board:

1. That the existing Act be retained, as it has been found to be effective and in the best public interest.

2. That if necessary the existing Act be modernized and revised to accomplish desirable objectives by amending it.

3. That the U. S. Attorney be advised that the procedure followed by the Educational Council for Foreign Medical Graduates makes it unnecessary to determine acceptability of the medical school from which a foreign medical student has graduated.

4. That the necessity and desirability of amending the present Healing Arts Practice Act to provide a mechanism for the suspension or revocation of a physician's license in the District of Columbia be explored and that a joint conference for this purpose be arranged to which should be invited the U. S. Attorney, Mr. Oliver Gasch; his Assistant, Mr. E. Riley Casey; Mr. Robert T. Kneipp, Assistant Corporation Counsel; Mr. Warren E. Magee, the Society's Legal Counsel; and members of the Committee on Public Policy.

5. That the Commission on Licensure as now constituted be continued.

These recommendations came before the Executive Board on September 22 and were unanimously approved. In transmitting the views of the Board and the Committee to Mr. Gasch, Dr. James W. Watts, President of the Society, stated:

"I am well aware that the above actions are at variance with your views in the matter, but this is the position taken by the Committee, which the Executive Board approved. The Board's action is subject to final approval by the Society itself which will hold its Annual Business Meeting on November 23, 1958."

In the closing paragraph Dr. Watts called particular attention to the proposed conference in which he hoped Mr. Gasch would participate. Dr. Watts received a cordial reply from Mr. Gasch, stating that he would participate and that he was arranging a meeting of the Commission on Licensure for the purpose of considering the Society's recommendations. Thereafter, he had in mind scheduling a meeting of the Commission to which officers of the Society would be invited.

There will undoubtedly be further developments in this matter on which the Society's membership will be kept informed.

★

Social Security and Physicians (Contd.)

As reported in this column in the September issue, another poll of Society members had been authorized by the Executive Board for the purpose of ascertaining the views of Society members with respect to the participation of physicans in Social Security. The membership was last polled on the same subject early in 1956 after the AMA's House of Delegates at its meeting in Boston urged that a canvass by states be made. Incidentally, on this occasion 2 questions were asked physicians to whom "ballots" were directed:

"Do you favor compulsory Social Security coverage for physicians?"

"If not, do you favor voluntary coverage for physicians?"

Five hundred seventy-two of the 732 members who voted favored voluntary participation, a surprising 123 favored compulsory participation, and 37 disapproved of both.

It was subsequently learned that voluntary participation in Social Security was not possible and that, like all other citizens, physicians could participate only on a compulsory basis. Therefore, the poll had little practical value, but it did point up the fact that there was considerable membership interest in Social Security protection.

Profiting from its previous experience, the Board asked this question of the membership in the recent poll: "Do you favor physician participation in the Social Security Program?"

This time, 746 physicians voted, with the following results:

550 for participation
192 opposed
4 no opinion

Unsolicited comments were appended to a few of the ballots. Here are those of members who voted for participation:

> "I agree with the stand of physicians many years ago when they said that Social Security was the first step toward socialization; however, our country has taken too many steps toward the total socialization to which it is doomed for the resistance of physicians to prevent. Since we must in part support the system at present I think we should stop resisting the inevitable and receive its benefits even though I have always bitterly opposed 'something for nothing.' "

> "No comments are asked for, but I am voting 'yes' because our other more appropriate legislation has gotten nowhere and I do not believe it will."

> "I am opposed to Social Security, but since it is in force for most Americans, I feel physicians should not be excluded."

Among those who voted "no" there were the following comments:

> "The answer is a strong 'no,' if we can eventually get the income tax relief of $7,500.00 to put away each year for our own security. In other words, I want the privilege of buying my own social security."

> "Security is and always has been a snare and a delusion."

> "It is my belief that the membership as a whole is not sufficiently aware of the pro's and con's on this complex question. I suggest that a representative of HEW and one from the AMA be invited to discuss their respective viewpoints at an open meeting of the Society."

Again, it must be remembered that these were unsolicited comments. What results would have been if everyone voting had been asked for his or her views is a matter of conjecture. The probability is that they would have thrown an entirely different light on reasons why a majority voted as they did.

Results of the recent poll may be surprising to some but not to your Observer. As he stated in a previous issue of the MEDICAL ANNALS, "Calls received at the Society's Executive Offices would indicate that an increasing number of members are in favor of coming under the Social Security Act. Several have expressed themselves as being impatient with a situation where the medical profession is the only nonparticipating self-employed group. The Social Security Act, they point out, is here to stay, and physicians should assume their share of the burden of sustaining the system regardless of their views as to its merit. There is also a segment of the profession who feel that they are entitled, in case of dire necessity, to the benefits that accrue to participants."

In your Observer's opinion, there is every reason to believe that the vote in 1956 and the current one make it clear that the membership knows what it wants and why.

★

Human Element in Traffic Accidents

There is a serious lack of financial support for efforts to improve the "human element" in traffic accidents, according to James P. Economos, Director, Traffic Court Program, American Bar Association.[1] However, Mr. Economos believes that "a combined program carried on by physicians and lawyers may furnish the needed spark to attract the required funds."

He suggests that "one way to do this is to hold a joint medicolegal symposium on the traffic problem at an early date. The presidents of the American Bar Association and American Medical Association should assert the leadership required for this joint enterprise. Together the two professions can develop the factual background needed for remedial changes in the control and regulation of the most important factor in the traffic accident problem—the 'human element.' "

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[1] Internat. Rec. M., 1958, **171**, 573.

What, then, are the human elements which contribute to traffic accidents? Mr. Economos would classify drivers as those who "can't," "don't," or "won't."

The "can't" traffic violator, he says, is one "who cannot operate (or walk) properly because of a physical or mental defect."

The "don't" individual "lacks (a) understanding of the objectives of traffic laws; (b) operative skill in the handling of the vehicle; and (c) judgment with respect to the ability of the car or his reaction to cope with the physical laws of motion."

In the "won't" category are those who have no "respect [for] authority or whose attitude toward traffic rules is faulty."

Although Mr. Economos is concerned with developing his proposed program on a national level, his observations suggest the desirability of taking a hard look at the situation in the Nation's Capital. Your Observer would hazard a guess that much would be gained if a joint committee, representing the Medical Society and the District Bar Association, would determine what has been accomplished and what needs to be done.

To date, the Society's Traffic Committee has confined its activities largely to serving in an advisory capacity to the District's Director of Traffic. At frequent intervals the Committee and other physicians whom it calls upon, serving under the able Chairman, Dr. Herbert S. Gates, examine individuals who have been disqualified for driving because of a physical or mental defect. This has been found to be an effective method of weeding out the "can't" category. Certainly, the splendid work of the Committee deserves the high praise which it has received from the Executive Board and from the Director of Traffic.

However, it would seem desirable from many points of view for the Committee to expand its activities for the purpose of giving further support in the area of education and enforcement; that this become a joint undertaking of the Committee and a similar committee of the District Bar Association, providing, of course, the latter is receptive to the idea.

Washington's traffic accident record has generally been better than in most cities, but it can be improved. An effective program, dealing with the human element to a greater extent than at present, in which the medical and legal professions would participate, would, as Mr. Economos suggests, pay real dividends.

★

"...Not So Simple..."

There are, of course, exceptions, but most lawyers your Observer has encountered write in calculated, uninspiring prose. As a layman sees it, they leave nothing to chance where clarity and fact are concerned, even to the point of the non-professional reader's utter boredom.

Perhaps if more of us exercised as much care in what we write, our lives would run a smoother course. Be all this as it may, here is an example of what your Observer is talking about.

Early in September he received the following communication from a member of the Society:

> "I should like to get an opinion from the legal division [of the Society] as to the actual legal responsibility a physician assumes when he countersigns an intern's or resident's history and physical examination.
>
> "I have cautioned the attending and courtesy staff to read the histories carefully and check the physicals before signing their names as required by the National Accreditation Board, in order that they may avoid possible embarrassment in a medicolegal problem."

This doctor's query was forwarded to legal counsel for his comments. He wrote, in part, as follows:

> "I have had occasion to raise this point a number of times in connection with litigated matters. We have sometimes found a difficult problem when the record showed that apparently conclusions or impressions, or tentative diagnoses expressed by an intern or resident

were either countersigned by a physician, or let stand unchallenged in the record when they were actually incorrect.

"Occasionally, a situation has arisen where in preparation for trial the defending physician and expert witnesses would maintain that the proper diagnosis and medical opinion was contrary to that recorded by an intern or resident. In the record there would be no qualification of the opinion expressed by such intern or resident. To the casual reader, it would be a clear medical opinion or diagnosis. These situations arose, of course, where the recorded impression, opinion, or diagnosis was contrary to and harmful to the defense because it would tend to support what the plaintiffs claimed and to refute and disprove the defendant's position.

"Dr. Blank states the situation as a very simple question. It is really not so simple as it appears by the statement of the question. In fact, it is a broad and complicated problem, the handling of whch would affect the program of each hospital with respect to instructions to interns and residents, qualifying impressions, opinions, and tentative diagnoses and the general maintenance of records.

"In my opinion, all of the hospitals should revise their approach to the matter of records inscribed for permanent keeping in the patients' charts by interns and residents. This would involve a 'must' rule with respect to review of intern and resident records by the patient's attending physician or a staff physician on the service.

"Generally speaking, when a physician signs an intern's or resident's history and physical examination, it should be quite obvious that his signature indicates approval and confirmation. Such approval and confirmation would impose varying degrees of legal responsibility, depending upon the circumstances and facts of each case.

"In my opinion, detailed study of the problem should be made in conjunction with the whole matter of hospital records and patients' charts."

See what we mean? There is no question what the eminent counsel means. It is stated in unequivocal but carefully worded language. It may not be inspiring, but the facts are expertly stated for the reader's information and guidance.

★

Ever the Crusader?

Some weeks ago a former newspaper reporter, who now publishes a widely read weekly bulletin devoted to developments of medical interest in the Nation's Capital, dropped in for a visit with your Observer. At one point in the conversation views were exchanged about each other's writing. The Observer commented that the ex-newsman was not always objective in his analysis of the events he reported. He, in turn, commented that the Observer was less outspoken than he once was. He said, in effect, "You used to speak more frankly on the economic problems in medicine. In fact, some years ago I found your views more vigorous and stimulating than they are today. You now seem to tread more carefully in expressing your opinions."

Your Observer has always thought of himself as having a crusading spirit which has not been dimmed by time. Upon reflection, however, he is not so sure. After all, the accumulation of years and experiences has a tendency to make one more tolerant, less dogmatic, and certainly more philosophical. If this is an admission of aging, so let it be.

Your Observer, however, is unwilling to admit that this is the only explanation for a milder approach, if such it be. When he first came to Washington it was with the understanding that the Society was receptive to the development of a prepayment medical care program. This understanding came to fruition several months later when Mutual Health Service came into being. The Service was a comprehensive coverage plan with a rather low premium, considering the services promised. The income level of those entitled to medical care without additional charge was low—$2,500 annually for a family of two ($200.00 additional for each dependent). This, incidentally, was one of the things that militated against the Service's success. Many of the executives of business firms approached took the position that they could not discriminate between their employees; that the program had to be available to all or none. After 6 months this program failed, at a considerable financial loss to the Society.

It was between the demise of MHS and the establishment of Medical Service of the District of Columbia that your Observer was most vocal in urging that another prepayment plan be undertaken, pointing out what was happening in other parts of the country where the demand for prepaid medicine was being met. It should be understood, of course, that if what he was engaged in could be called a crusade, it had the blessing of the Executive Board and the Society itself. It was during this period that, as the reporter friend said, the Observer was in hot pursuit of an objective which was finally realized in the latter 1940's.

The medical profession, here and elsewhere, is now confronted with the most serious problems in your Observer's experience. Even though he may not be as militant as he once was, his views should be more mature and more constructive, and, with the approval of the Executive Board and the Society, stated more effectively. However, in view of the ex-reporter's observations, he will from now on be more conscious of his approach to current medical issues, because, of all things, he does not wish this column to become anemic.

T. W.

MEMBERSHIP

The following applicants for membership were duly elected to membership by the Executive Board, September 22, 1958, in accord with Amendment XI, Section 2, of the Constitution and By-laws of the Society.

Active Members

James E. Abell, 1840 Michigan Avenue, N.E.
James A. Davis, Washington Clinic
Richard C. Fowler, 3070 Que Street, N.W.
Robert A. Mendelsohn, 1904 R Street, N.W.
Ralph A. Olson, 915 19th Street, N. W.
Louis R. Perna, 1249 Alabama Avenue, S.E.
Mauris M. Platkin, 1116 Congress Street, S.E.
Wilson A. Powell, Washington Clinic
Irwin W. Rovner, 622 Beacon Road, Silver Spring, Md.
Warren J. Strudwick, 5327 2nd Street, N.W.
Stanley J. Talpers, 1025 Vermont Avenue, N.W.
Sidney L. Werkman, 2025 Eye Street, N.W.
Albert S. Winer, 3000 Connecticut Avenue, N.W.

Associate Members

Brooke A. Beyer, 1830 Eye Street, N.W.
Colonel John B. Coates, Jr., M.C., U. S. A., 3935 Legation Street, N.W.
Osman E. Ersoy, 708 Massachusetts Avenue, N.E.
Sarah H. Knutti, 1427 Eye Street, N.W.

The following applicants for membership will be voted on at the meeting of the Executive Board, December 15, 1958.

For Active Membership

Charles N. Bland, Meharry Medical College—1954
Joseph A. Bourke, Jr., Howard University—1952
Seymour Dubroff, George Washington University—1951
Otis R. Farley, Rush Medical College—1940
Kamel J. Hassan, Georgetown University—1952
Melvin J. King, Cornell University Medical College—1954
Jorge Labarraque, University of Havana School of Medicine and Pharmacy—1949
Mildred G. McDonald, University of Maryland—1942
George W. Roark, Jr., University of Pittsburgh—1950
Pierce B. Scott, University of Virginia—1953
Agatha J. Sobel, University of Chicago—1954
Howard E. Ticktin, George Washington University—1954
Thomas Mahon Wright, University of Virginia—1951
Edward W. Youngblood, George Washington University—1954

For Associate Membership

Vernon H. Coughlan, University of Iowa—1933
Joseph O. Dean, University of Nebraska—1926
Nevill McCaa Joyner, University of Nebraska—1926
Hilary E. C. Millar, School of Medicine of the Royal Colleges, Edinburgh, Scotland—1947
James M. Moss, University of Virginia—1941
John Atkinson Owen, Jr., University of Virginia—1948
David E. Price, University of California—1940

For Affiliate Membership

Walter F. Cresswell, Jr., George Washington University—1948

For Resident-Intern Membership

John Howard Renner, George Washington University—1958

Recent changes in membership status:

Active to Affiliate

Allan Hall
Marvin L. Kolkin

Active to Associate

Bernard A. Harrison
Robert H. Syme
Samuel L. Tabb

(*Continued on page 622*)

THE PHYSICIAN'S ROLE IN THE SOCIAL SECURITY DISABILITY PROGRAM

VICTOR SADD

District Manager, Bureau of Old-age and Survivors Insurance, Social Security Administration, United States Department of Health, Education, and Welfare

Doctors, hospitals, institutions and agencies that have contact with disabled people are frequently asked these days to fill out medical reports in connection with claims under the disability provisions of the Social Security Law. Under these provisions, disabled workers 50 to 65 years of age, their eligible dependents, and the disabled dependent sons and daughters of retired or deceased workers may receive monthly disability payments. Disabled workers under age 50 may have their Social Security records "frozen." This protects the future benefit rights of the disabled worker and his family.

To qualify under these disability provisions a person must be unable to engage in any substantial gainful activity by reason of a medically determinable physical or mental impairment which can be expected to result in death or to be of long-continued and indefinite duration. A disabled worker must, in addition, have Social Security credits for work in at least 5 out of the 10 years before he became disabled. A disabled child must have become disabled before his or her 18th birthday.

Applications under the Social Security disability provisions are taken by more than 580 Social Security district offices, located in communities all over the Nation. The Social Security district office gives the disabled applicant information about his rights, helps him to fill out his application, and to get the proofs and documents he may need to support that application. Under the law the disabled person is responsible for furnishing, at his own expense, the evidence to show that he is "disabled" within the meaning of the Social Security Law.

The Medical Report

His Social Security district office gives him one or more copies of a medical report form on which this evidence can be supplied. He is asked to take or mail this form to his attending physician or to a hospital, institution, public or private agency where he has been treated for his disabling condition. This report form, designed as a guide for the reporting physician, lists the kind of medical facts essential for the determination of "disability." However, the reporting doctor is not required to use it; if he prefers, he may make his report in the form of a narrative summary, or he may submit photocopies of the pertinent medical records. The completed reports are to be returned by mail to the Social Security district office (or to a state agency, if indicated).

By providing a full and objective clinical picture of his patient, the reporting doctor fulfills his responsibility to his patient and, incidentally, expedites the decision. To be of maximum use for the evaluation of a patient's capacity for work, the report should include a history of the impairment, the symptoms, clinical findings and diagnosis. Obviously, the reporting physician has an important role in the operation of the Social Security disability provisions. He is not, however, asked to decide the issue of "disability." The determination as to whether a patient is "disabled" must be made within the scope of the Social Security Law; often it is based on evidence from more than one medical source. Also the determination must take into account factors which are not purely medical—factors such as education, training, and work experience.

After the applicant has filed his claim under the disability provisions and furnished the supporting evidence, his case is forwarded by his Social Security district office to an agency of his state, usually the State Vocational Rehabilitation Agency. Under agreements between the individual states and the Federal Government these state agencies make the disability determinations for their own residents.

In the District of Columbia the agreement with the Federal Government provides for the District of Columbia Department of Vocational Rehabilitation to make these disability determinations.

The evaluation of disability is made by a "review team" in this agency. There are at least 2 professional people on each team. One of the 2 is a doctor of medicine (often a practicing physician who serves with the D.C. Agency on a part-time basis); the other is trained in evaluating the personal and vocational aspects of disability. The team must decide whether the applicant is sufficiently disabled to prevent him from engaging in any substantial gainful activity within the foreseeable future.

In many cases it is necessary to write back to the reporting physician because the medical report does not contain enough clinical facts. As a rule, the kinds of medical facts that the attending physician needs in making his diagnosis and in treating his patient are the same as those required to evaluate the severity of impairments in disability programs. However, certain medical facts are more highly significant in disability evaluation than to medical management of the case. To evaluate the effect of the impairment on the individual's ability to work requires the kind of medical evidence that confirms the diagnosis and measures the remaining functional capacities of mind and body. By furnishing complete and objective evidence the reporting physician makes it unnecessary for the reviewing physician to "write back" for additional clinical or laboratory data.

Where the medical evidence initially submitted indicates a reasonable likelihood that the applicant is disabled but more precise clinical or laboratory findings are needed to arrive at a sound decision or to resolve conflicts in the evidence, a consultative examination (usually at the specialist level) may be ordered to obtain additional information. Selection of consulting physicians and payment of fees are governed by state practices.

Fee for service. Some doctors feel that they should be reimbursed by the Government for the cost of preparing the medical reports on their patients, and it is, of course, quite within their prerogative to charge the patient a fee for that service. However, under the law, the Social Security Administration cannot pay that fee; that is the individual's responsibility.

Other doctors are perturbed when asked to complete medical reports for individuals whom they may not have seen for years. In these cases, however, the physician is not expected to describe the present condition of the patient but his medical condition as of the time he made his last examination. Although the Social Security disability provisions were made applicable to persons whose disabilities may have begun as far back as 1941, all those with long-standing disabilities must apply before July 1, 1961.

Evaluation of Disability

The central purpose of disability evaluation is to determine remaining mental and physical capacities: (1) what the claimant has left, and (2) what he can do with what he has left.

A realistic evaluation of disability must be based on clinical and laboratory tests of the individual's ability to meet the metabolic demands of activity, to reason, to perceive, and to perform certain basic activities such as sitting, standing, bending and walking. When incapacity results from severe impairment of one or more such functions, it is essential to establish not only the fact that functional impairment exists, but also its extent.

A brief discussion of disability from heart disease may serve to illustrate the kind of evidence needed to measure the patient's remaining functional capacity, after appropriate therapy. Most frequently, impairments of the circulatory system produce loss of bodily function by reduction of cardiac reserve, or interference with peripheral vascular circulation. As a result the circulatory apparatus cannot meet effectively the metabolic demands placed upon it. The diagnosis of the condition usually reflects whether the impairment is caused by valvular disease, myocardial damage or vascular pathology.

Cardiac size by X-ray or physical examinations and EKG findings furnish objective proof of cardiac pathology. The amount of dyspnea or angina described in terms of the number of steps that can be mounted or distance in feet or blocks that the patient can walk is highly significant to evaluation of the degree of loss of function. The presence or absence of cardiac edema and response to therapy are also indicative of severity of cardiovascular impairments. The status of the pulse in the peripheral vessels may provide gross clinical evidence of impaired circulation of the extremities.

Impairments of the cardiovascular system may manifest themselves with dramatic suddenness, as in myocardial infarction and in obstruction of vessels in peripheral or central nervous system circulation, lungs, and other visceral organs. The initial clinical manifestations are severe and the prognosis dubious. With survival from the acute stage and appropriate therapy substantial improvement can be expected over a period of time.

A realistic evaluation of remaining function should be made after the convalescent period. Hence, the clinical and laboratory findings after maximum improvement from treatment are particularly valuable in making a determination of remaining cardiac, brain or other function. (Note that a "waiting period" is prescribed by law, i.e., the first monthly disability insurance benefit cannot be paid until the seventh month after the onset of the disability.) A description of the acute attack helps confirm the diagnosis and should therefore be included in the report.

Loss of function is evaluated on the basis of clinical and laboratory findings after maximum benefit from treatment. Clinical information concerning nature and response to treatment furnishes information on stability of cardiac capacity; i.e., a history of periodic decompensated heart disease, in spite of treatment, would indicate a comparatively severe condition.

More complicated tests of vascular function may be required. The reporting physician should not be concerned because he may not have equipment to perform these tests. A carefully performed exercise tolerance test (if not medically contraindicated) will almost always provide the clinical evidence needed to evaluate the degree of remaining function.

Non-Government Coöperation

Medical Advisory Committee. In developing evaluation guides for the use of State Agency and its own technical and professional personnel, the Social Security Administration has had the continuing coöperation of a Medical Advisory Committee appointed by Commissioner Schottland in February 1955. The Committee is composed of recognized specialists associated with medical and allied professions in various fields outside Government, such as general practice, research, medical education, industry and labor.

American Medical Association. The American Medical Association has coöperated with the Social Security Administration by informing its members about the medical aspects of the disability program, especially the preparation of medical reports. On June 1, 1957 the *Journal of the American Medical Association* carried a comprehensive report on the administration and organization of the disability provisions. Regulations on the meaning of disability appeared in the September 28, 1957 issue of the J. A. M. A. (page 354).

GRANTS FOR POSTGRADUATE TRAINING IN PSYCHIATRY

The National Institute of Mental Health is offering grant support for a training program to general practitioners and other physicians engaged in the practice of medicine other than psychiatry. Funds are available during the current year (fiscal year 1959) for these grants, and training institutions may submit applications at any time.

The program has two purposes. First, it is intended to foster the development of postgraduate training in psychiatry for the practitioners who wish to increase their psychiatric knowledge and skills in order to be able to deal more effectively with the emotional aspects of illness generally and in order to play a more effective role in the treatment and prevention of mental illness. These courses will be designed for the physician who plans to continue practicing in his own field.

Grant support is being offered to medical schools, hospitals, clinics, and medical and psychiatric societies for the development and expansion of such postgraduate training in the form of courses, institutes, and seminars. This support does not include fees, subsistence, or travel for the physicians who attend.

Support of this type of training may be for a particular professional group over a given period, or for training offered regularly as part of the postgraduate curriculum of a medical school, hospital, or clinic, or as part of the educational program of a medical or psychiatric society.

Physicians interested in obtaining this type of training should apply to medical schools, hospitals, clinics, and medical or psychiatric societies which have, or are developing, such training opportunities.

Second, the program will provide support at an adequate level for psychiatric residency training for physicians in practice who wish to become psychiatrists. Training stipends up to a maximum of

$12,000 a year are available. The level of payment will be determined by the training institutions, who will also make the award to the individual physicians. The National Institute of Mental Health will make awards of grants for this purpose to training institutions and not to individuals.

Physicians interested in support for this type of training should apply to training institutions which are approved for psychiatric residency training.

Inquiries about the program should be sent to Dr. Seymour D. Vestermark, Chief, Training Branch, National Institute of Mental Health, National Institutes of Health, Bethesda 14, Maryland.

THE LOST CHORD CLUB OF WASHINGTON, D. C.

The Lost Chord Club was organized about 12 years ago. Its primary purpose is to assist in the rehabilitation of persons who, due to the removal of the larynx because of cancer or for some other reason, have lost their natural voices. The regular members of this Club are all laryngectomees residing in the greater metropolitan area of Washington, D.C. Honorary members are professional or vocational men and women whose sustained interest in promoting the welfare of laryngectomees has been satisfactorily demonstrated. This Club, like similar clubs in most of the large cities throughout the world, is affiliated with the International Association of Laryngectomees, with headquarters in Detroit, Michigan. This Club also works closely with the D.C. Division of the American Cancer Society.

Meetings are held monthly, July and August excepted. At these meetings those who have developed a good speaking voice demonstrate to newcomers that it can be done. Members promote, by mutual assistance, the attainment, after laryngectomy, of esophageal or pharyngeal speech, or, in the alternative, speech by use of artificial larynges, in order to return Club members to normal social and vocational activities.

The Club has a Visitation Committee composed of members who have developed usable speech. When requested by surgeons, speech pathologists, nurses, relatives, or other interested persons, members of this committee make visits preoperatively and postoperatively to persons about to undergo or who have had a laryngectomy. They have also visited groups of medical students, young physicians, and nurses for informal question-and-answer periods at various hospitals and clinics. Members of the Visitation Committee make these visits entirely on a voluntary basis, on their own time, and in transportation which they themselves provide.

Physicians and surgeons desiring the services of the Club's Visitation Committee, or who desire to have a patient attend the monthly meetings of The Lost Chord Club, can make arrangements by calling or writing to Helen Margaret Rogers, R.N., Director of Services, District of Columbia Division of the American Cancer Society, 810 18th Street, N.W., Washington 6, D.C., telephone Executive 3-3690.

PATIENT REFERRALS FOR CLINICAL CENTER

The National Institute of Allergy and Infectious Diseases has enlarged its clinical investigations of meningitis and encephalitis of probable infectious origin. Of particular interest at the present time are patients of any age having aseptic meningitis, especially those cases diagnosed as "nonparalytic poliomyelitis."

The studies in which such patients participate are concerned with improving the methods of diagnosis and treatment, and with measurements of the sequelae of this group of diseases.

Physicians who may be interested in referring patients in these categories are invited to make inquiries by letter or by telephone. These should be directed to Dr. John P. Utz, Chief of the Infectious Disease Service, National Institute of Allergy and Infectious Diseases, The Clinical Center, Bethesda 14, Maryland. The telephone number is Oliver 6-4000, ext. 3141. Sufficient diagnostic information should be furnished to permit determination as to suitability for admission to this group of studies. If deemed desirable, patients can be seen in consultation at hospitals in the immediate Washington, D.C., area.

HEARINGS ON GROUP HOSPITALIZATION, INC. (S. 4183*)†

STATEMENT BY F. P. RAWLINGS, JR.

President and Director, Group Hospitalization, Inc., Washington

Group Hospitalization is a nonprofit prepayment hospital service plan. By that I mean that our subscribers pay in advance for protection against hospital bills. Thus when a subscriber is hospitalized in a participating hospital, money is available to pay all or the major portion of his hospital bill. I do not want to mislead the Committee, and I hasten to add that there are circumstances under which a subscriber might have a substantial hospital bill in addition to the payment made by Group Hospitalization, but it is a demonstrable fact that the great majority of our subscribers have little, if any, additional amounts to pay for hospital care if they occupy a semi-private accommodation, irrespective of the fact that the cost of that care may range from only a few dollars up to several thousand dollars. We have paid as much as $5,694 for benefits provided one subscriber during one period of hospitalization under one of our basic coverages.

Group Hospitalization had its inception in March, 1933 when a group of citizens met at the call of the Honorable Joseph H. Himes, a former member of Congress from Ohio, to seek a method whereby men and women of moderate means could alleviate the burden of hospital bills. The conference was attended by the Surgeons General of the United States Public Health Service and of the Army and Navy, leaders in the medical profession, representatives of the medical schools, the Administrator of Veterans Affairs, officers and trustees of the hospitals in the city, and representatives of business and commercial interests. This group formed itself into a committee which, after months of hard work, recommended the establishment of a prepayment hospital service plan which was to become known as Group Hospitalization, Inc. Group Hospitalization was incorporated under the laws of the District of Columbia and began operating in 1934. It was chartered by the Congress in 1939.

That this organization has fully justified the confidence which Congress reposed in it is best attested by a quarter century of successful operation. Starting with 644 subscribers in 1934, we now have 760,000 persons in this community protected under our Plan. This progress could not have been accomplished without good, sound and prudent management.

Group Hospitalization is governed by a Board of Trustees comprised of 15 members. In accordance with the charter granted by the Congress, 5 members of the Board are appointed by The Medical Society of the District of Columbia, 5 are appointed by representatives of hospitals, and 5 are appointed by the Commissioners of the District. The interest of our subscribers is, of course, of paramount concern, and in our opinion that interest cannot be served to the fullest without the coöperation of the hospitals which provide the necessary care, and of doctors who determine when and to what extent their patients need hospital care. The present method of selecting Board members provides for a balanced judgment in the management of the affairs of our organization, and we think it would be unwise to upset that balance.

We have been extremely fortunate in the caliber of the men who have been selected by the appointive bodies and who have given freely of their time and abilities in behalf of our subscribers. The concern of each of the trustees has been to serve all subscribers to Group Hospitalization. Selfish interests and narrow partisan efforts have not been a problem. The devotion of the members of our Board to the public interest is attested by the fact that they serve without compensation.

Neither the Medical Society, nor the representatives of hospitals nor the District Commissioners are required by our charter to appoint any particular person or representatives of any particular group. Therefore, legislation is not necessary to change the composition of the Board. The Medical Society has not always appointed physicians. One of their appointees presently serving on the Board is a public-spirited layman and civic leader.

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* A bill to reduce the number of trustees on the Board of Trustees of Group Hospitalization, Inc.

† Editor's note: Published herewith are two statements read before the Subcommittee on Public Health, Education, Welfare and Safety of the District of Columbia Committee of the United States Senate in Washington, D. C., August 5, 1958.

MEMBERS OF THE BOARD

The Medical Society appointees now serving on the Board are:

Frank R. Jelleff. Mr. Jelleff is Chairman of the Board of Frank R. Jelleff, Inc. He is President Emeritus of the Boys Club of Washington, D. C. and a member of the Board of Trustees of the Boys Club of America. He was President of the Community Chest during World War II and has been identified in various capacities with that organization since its establishment in Washington. Mr. Jelleff has also served as a member of the Parole Board of the D. C. and was Chairman of that Board for 7 years. He was appointed to the Board of Trustees of Group Hospitalization in July 1938, and has served continuously since that time.

Dr. A. Magruder MacDonald. Dr. MacDonald is a general practitioner of medicine. In addition, he is Coroner of the District of Columbia.

Dr. Howard P. Parker. Dr. Parker is an obstetrician. He is a former trustee of Garfield Memorial Hospital and is currently a member of the Board of Trustees of the Washington Hospital Center.

Dr. Richard H. Todd. Dr. Todd is a pediatrician. He is President of the Doctors' Symphony Orchestra.

Dr. Ralph D. Whitley. Dr. Whitley is a surgeon, and is Medical Director of the Potomac Electric Power Company.

The hospitals have evidenced their concern for the larger community interest by appointing only nonsalaried, public-minded members of their own governing bodies to the Board of Group Hospitalization. They have never appointed a salaried hospital employee.

The hospital appointees now serving on the Board are:

Charles D. Drayton. Mr. Drayton is an attorney in Washington, D. C. and has a long history of interest in the affairs of Children's Hospital. He is the Past President of that Hospital, and, in addition, was general chairman of the Children's Hospital's Completion Fund and a former member of the Hospital Council of the National Capital Area. Mr. Drayton was appointed to the Board of Trustees of Group Hospitalization in December, 1940, and has served continuously from that time.

James H. Lemon. Mr. Lemon is a partner of Johnston, Lemon and Company, Washington, D. C. Mr. Lemon, like Mr. Drayton, is also a director and former President of Children's Hospital and, in addition, was Director of its Research Foundation. He serves on the boards of the United Givers Fund, the D. C. Chapter of the American Red Cross, and is a trustee of the Federal City Council. Mr. Lemon was appointed to the Board of Group Hospitalization in 1952, and has served continuously from that time.

H. L. Rust, Jr. Mr. Rust is President of H. L. Rust Company in the District of Columbia. He is Vice President of the Washington Hospital Center and former Vice President of the Episcopal Eye, Ear and Throat Hospital, the functions of which have been taken over by the Washington Hospital Center. His other community interests include activities in connection with the Washington Cathedral and the Community Chest.

Walter N. Tobriner. Mr. Tobriner is an attorney in Washington, D. C. He was President of Garfield Memorial Hospital when its activities were taken over by the Washington Hospital Center, and is now Vice President of the Center. Mr. Tobriner is also President of the Board of Education of the District of Columbia, President of the Lisner Home for the Aged, and is a member of the National Capital Housing Authority.

There is a vacancy among the hospital appointees to our Board which was created when the Honorable F. Moran McConihe resigned due to the pressure of his duties as Commissioner of Public Buildings of the Federal Government.

The Commissioner appointees are:

Bruce Baird. Mr. Baird is President of National Savings and Trust Company. He has been prominently identified with the Anson Mills Foundation, the Anthony Francis Lucas Foundation, and the Kiwanis Foundation (all of which administer to crippled and underprivileged children), the YMCA, and the Boys Club of Washington, D. C.

The Honorable Joseph H. Himes. Mr. Himes is an official of many enterprises. He is the founder of Group Hospitalization, was its President from the date it was founded in 1933 until last May, when he was forced to take a less active part in the affairs of the corporation because of his health. He is now Chairman of the Board of Trustees and continues to have a keen interest in the organization. Mr. Himes was

President of Columbia Hospital in 1933 when the need for a prepayment program was forcefully brought to his attention, whereupon he resigned from the Board of Columbia to devote his time and attention to the formation of Group Hospitalization.

Howard W. Kacy. Mr. Kacy is President of Acacia Mutual Life Insurance Co., Washington, D. C. Mr. Kacy's other civic interests include Washington Board of Trade, Metropolitan Police Boys Club, District Chapter of the American Red Cross, the American Cancer Society, the Federal City Council, and the YMCA.

Alfred G. Neal. Mr. Neal is Chairman of the Board of Potomac Electric Power Company. He has also been active in the District Chapter of the American Red Cross, having recently received an award for faithful and active service on its Executive Committee, and the Boys Club of Washington.

I am also a member of the Board, having been appointed to complete the unexpired term of Brigadier General Frank T. Hines, who resigned because of his health.

Reasons for Rate Increase

As you know, we have recently announced a rate increase and I would like to tell you something of the reasons for doing so. Let me say first, however, that profit motives had nothing to do with it. As I have already said, Group Hospitalization is a non-profit organization. There are no stockholders and no dividends, commissions or the like paid to anyone. Therefore, since rate changes are complex and costly, we make them as infrequently as prudent management will permit.

There have been only 3 prior rate increases in 25 years. We have, on 2 occasions, reduced rates, and on several other occasions we have been able to pay for additional hospital services for our subscribers without a concomitant change in rates.

The major portion of hospital costs for most conditions is covered by Group Hospitalization. This coverage is referred to as a "service benefit" in order to distinguish it from an "indemnity benefit" which pays a stated number of dollars to be applied against hospital charges. The value of the service benefit over the indemnity benefit becomes greater as inflation drives the cost of hospital care upward, but there inevitably comes a time in the inflationary spiral when outgo exceeds income. We reached that point 20 months ago, on January 1, 1957, and the only reason we have announced a rate increase is that hospital costs have reached a point where our income from subscribers is no longer sufficient to meet the payments made to hospitals for the benefits subscribers receive. Our loss from underwriting for 1957 was approximately $720,000 and for the first 6 months of 1958 it was approximately $997,000. To put it another way, during the first 6 months of 1958, for each $1 we received from our subscribers we paid $1.09 for hospital services they received. This does not take into account the administrative cost of running Group Hospitalization, which, if added to the $1.09 shows that we paid out $1.16 for each $1 we received. The excess of outgo over income has reduced our unallocated reserve from $8.5 million, or 10 months of claims and operating expenses, as of January 1, 1957 to $7.3 million as of June 30, 1958, or about 6 months of claims and operating expenses. Expressed in relation to the number of subscribers covered by Group Hospitalization, our unallocated reserve is equal to about $9.60 for each subscriber or less than half the average amount paid by Group Hospitalization for a day of hospital care.

Since March 1, 1952, when the last rate change became effective, the average daily cost of services rendered by our participating hospitals has increased 40 per cent, and the number of days of hospital care required annually by each 1,000 subscribers has also increased.

The largest element of hospital operating expenses, approximately 65 per cent, consists of wages and salaries. Hospitals require approximately 2 employees for each patient and, like all other employers, have had to raise salaries and wages. It is readily apparent that if the hospital employees earned an average of only $1 an hour, the personnel cost alone for each patient would be $16 a day. When it is considered that many hospital employees are required to be skilled technicians, it is obvious that personnel costs per patient are more than $16 a day. The most recent indication of increasing personnel costs is the increase of $30 a month for nurses' salaries.

The cost of everything hospitals buy—from drugs to dressings, to food, gas, electricity, telephone and countless other items—has increased. These rising costs have been further inflated by scientific advances which have brought us such things as the miracle drugs. New diagnostic facilities and surgical technics are saving lives but they are costly. These developments have produced excellent hospital care, but they are accompanied by NEW COSTS which must be paid.

Group Hospitalization's rates are a reflection of the cost of hospital care, a cost over which we have little control. Carefully analyzed experience of the last decade indicates that in response to the daily changes of the national economy, it will cost hospitals at least 6 per cent more each year just for the same services now provided. In the final analysis the utilization by the public of the hospital's facilities and the charge made therefor by the hospital determine the rates we must charge our subscribers.

It is significant, however, that many subscribers and spokesmen for organized groups of employees have expressed a desire for more, rather than less, protection, and more protection costs more money.

Three elements go into the make-up of our rate structure: (1) the cost of the services rendered our subscribers by hospitals; (2) the administrative cost of operating our organization; and (3) an amount to provide a reasonable reserve. We expect the recently announced rates to meet our requirements for 3 years, during which time 89.7 cents of each dollar will be used to pay hospital claims; 5.6 cents for all costs of operating the organization; and 4.7 cents for reserves.

Table 1 shows our old rates, the amount of the recent increase, and new rates including the increase.

In conclusion, I want to emphasize that Group Hospitalization is operated for the benefit of its subscribers, that it does not raise rates capriciously or without cause, and that the sole purpose of the recent rate increase is to maintain a sound organization which can provide adequate benefits to our subscribers. A rate increase is a complex and difficult operation. Therefore, I do not see what can be gained by delegating rate-fixing authority to some third body which, by its very nature, does not have the opportunity to know the problems involved as well as does the Board of Trustees of Group Hospitalization. Furthermore, I do not believe that delegation of the rate-making authority to a third body will solve the problem of rate increases unless that body also has the authority to control hospital costs at the source. If our subscribers are to continue to receive the protection they now have, our rate structure must be adequate to provide it. The fixing of rates at an inadequate level can result only in the reduction of benefits to our subscribers or in hospitals' terminating their agreements with our organization. Either would be a loss to the community.

TABLE 1

Comparison of Old and New Rates

	Old Rates	Increase	New Rates
Group Subscribers			
Standard Individual Contract	$1.70	$ .68	$2.38
Standard Family Contract	3.70	1.78	5.48
Preferred Individual Contract	2.08	.78	2.86
Preferred Family Contract	5.72	1.00	6.72
Direct Pay Subscribers			
Standard Individual Contract	2.05	1.45	3.50
Standard Family Contract	4.45	2.55	7.00

I should like to add that the problem of public regulation of broadly based community services is a complex problem, especially when the health of the citizen is involved.

Group Hospitalization will welcome an opportunity to work with the Committee in the exploration of these matters in the public interest.

STATEMENT BY HERBERT P. RAMSEY, M.D.

Chairman of the Executive Board, The Medical Society of the District of Columbia

I am here to point out the interest of the Medical Society in Group Hospitalization, Inc., and to emphasize the knowledgeable attitude of physicians in medico-economic matters.

The Medical Society has been actively interested in medical costs since the latter 1920's. Many committees have, over the years, studied the problems of the costs of medical care and recommended programs that have achieved the objectives for which they were devised.

Among the most successful has been Group Hospitalization, Inc. which, as you have been informed, was established in 1933. One of the leaders in this community largely responsible for the existence of Group Hospitalization, Inc., was the late Dr. Arthur C. Christie, an internationally known radiologist; his devotion to prepayment hospitalization is well known to the older citizens in Washington. There were, of course, other physicians who lent strong support and leadership to Group Hospitalization, Inc. Among these were Dr. Charles Stanley White, eminent Washington surgeon, the late Dr. Earl Baldwin McKinley, and the Surgeons General of the Army, Navy, and Public Health Service.

As you know, the present Board of Trustees of Group Hospitalization, Inc., consists of 15 members, a third of whom are appointed by our Society. Four of them have been and are physicians and one is a layman. Serious thought has been given by our Executive Board to the ability and interest of the individuals chosen and their willingness to make sacrifices in time and effort so that the public will be assured of hospitalization at a cost within their means.

If you have not been previously so advised, you understand that all trustees serve without emoluments of any kind, as a civic responsibility. Our Society does not ask them to represent its interests but to contribute their best professional knowledge to problems involved in hospitalization on a prepayment basis. It is a statement of our belief that the idea of having representatives of special points of view is repugnant to us. We do not favor pressure groups within the medical profession and we do not favor them outside of it.

The men we appoint, as you know, are not all medical men. It is history that men who thought they might be representatives of something or other remained to learn the problems involved and to take the larger responsibility. They are not appointed for what they might do—but are appointed for what they know.

To limit the assessment of the knowledge of physicians to the field of medicine alone is to be unaware of the long history of medical men in general and of our Society in particular in the study of medico-economic problems.

It is my opinion, and the view is shared by the Executive Board of which I am Chairman, that the present composition of the Group Hospitalization, Inc., Board of Trustees is in the best public interest. We feel that much might be lost in the effective and sound administration of Group Hospitalization, Inc., if the proposed legislation providing for 3 appointees each from the hospitals and the Medical Society and 7 by the Commissioners might well adversely affect the conduct of Group Hospitalization, Inc., not by intent but by lack of understanding of the problems involved.

We would therefore urge that the present ratio of appointees be maintained.

THE CURED CANCER CLUB

The Cured Cancer Club of Washington is made up of men and women who have had cancer in some form or another but are well and active now. The members are dedicated to helping others who must go through a cancer experience. They offer assurance, encouragement, and hope by helping dispel their fears.

Club members will visit cancer patients or talk with them by telephone at the request of the patient, his family, the physician, priest or pastor, nurse or social worker who understands that the patient wishes for them to do so. They arrange for the patient to talk with a member who has had the same cancer condition and understands the patient's feelings and concerns better than anyone else.

The Club meets every second Thursday of the month, from 8 to 9 p.m., in the Warwick Memorial Building at 2300 K Street, N.W.

Physicians may refer patients or anyone interested in this work to The Cured Cancer Club of Washington, 6601 6th Street, N.W., Washington 12, D. C.

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interests of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

Callander's Surgical Anatomy, 4th ed. BARRY J. ANSON, M.A., PH.D. (Med. Sc.), Chairman, Department of Anatomy, and Robert Laughlin Rea Professor, Northwestern University Medical School, and Member of the Staff, Passavant Memorial Hospital, AND WALTER G. MADDOCK, M.S., M.D., F.A.C.S., Edward S. Elcock Professor of Surgery, Northwestern University Medical School, and Chairman of the Department of Surgery, Chicago Wesley Memorial Hospital. Price, $21.00. Pp. 1157, with 1047 illustrations. Philadelphia: Saunders, 1958.

The Management of Emergencies in Thoracic Surgery. JOHN BORRIE, M.B.E., CH.M., F.R.C.S. (ENG.), F.R.A.C.S., Thoracic Surgeon, Dunedin Hospital and Southern Metropolitan Region, New Zealand; Senior Lecturer in Thoracic Surgery, University of Otago Medical School; formerly: Hunterian Professor and Jacksonian Prizeman, Royal College of Surgeons, England; Assistant Thoracic Surgeon, Newcastle-upon-Tyne, England; New Zealand Nuffield Surgical Fellow. Foreword by Sir Russell Brock. Price, $10.00. Pp. 340. New York: Appleton, 1958.

The Neurologic Examination Incorporating the Fundamentals of Neuroanatomy and Neurophysiology, 2nd. ed. RUSSELL N. DEJONG, M.D., Professor of Neurology and Chairman of Department of Neurology, University of Michigan Medical School. Price, $20.00. Pp. 1078, with 368 illustrations. New York: Hoeber-Harper, 1958.

Physical Examination of the Surgical Patient, 2nd ed. J. ENGLEBERT DUNPHY, M.D., F.A.C.S., Professor of Surgery, Harvard Medical School; Director of 5th Surgical Service and Sears Surgical Laboratory, Boston City Hospital; Consultant in Surgery, Children's Medical Center, AND THOMAS W. BOTSFORD, M.D., F.A.C.S., Clinical Associate in Surgery, Harvard Medical School; Senior Associate in Surgery, Peter Bent Brigham Hospital; Associate in Surgery, Children's Medical Center. Price, $8.00. Pp. 375, with 203 figures. Philadelphia: Saunders, 1958.

Emergency Treatment and Management, 2nd ed. THOS. FLINT, JR., M.D., Director, Division of Industrial Relations, Permanente Medical Group, Oakland and Richmond, California; Chief, Emergency Department, Permanente Medical Group, Kaiser Foundation Hospital, Richmond, California. Price, $8.00. Pp. 539. Philadelphia: Saunders, 1958.

Basic Cardiology. T. E. GUMPERT, M.B., CH.B. (Sheff.), F.R.C.P. (Lond.), Physician, Royal Hospital, Sheffield, and Jessop Hospital for Women, Sheffield; Lecturer in Medicine, University of Sheffield; Examiner in Medicine to the Conjoint Board of England. Price, $6.00. Pp. 168. Bristol, England: John Wright and Sons, Ltd., 1958. Baltimore: Williams & Wilkins, exclusive U. S. agents.

Henry Ford Hospital International Symposium: Reticular Formation of the Brain. Edited by: HERBERT H. JASPER, Montreal Neurological Institute; LORNE D. PROCTOR, Division of Neurology and Psychiatry, Henry Ford Hospital; ROBERT S. KNIGHTON, Division of Neurosurgery, Henry Ford Hospital; WILLIAM C. NOSHAY, Section of Neurology, Henry Ford Hospital, AND RUSSELL T. COSTELLO, Department of Medicine (Neurology), Wayne State University. Price, $16.00. Pp. 766, illustrated. Boston: Little, 1958.

Experimental Pharmacodynamics, 2nd ed. T. KOPPANYI AND A. G. KARCZMAR. Price, paper, $5.50. Pp. 258. Minneapolis: Burgess, 1958.

The Eternal Search. The Story of Man and His Drugs. RICHARD R. MATHISON. Price, $5.95. Pp. 381. New York: Putnam's, 1958.

Your Child's World. ROBERT P. ODENWALD, M.D. Price, $3.50. Pp. 211. New York: Random House, 1958.

Poisoning—A Guide to Clinical Diagnosis and Treatment, 2nd ed. W. F. VON OETTINGEN, M.D., PH.D., National Institutes of Health, Public Health Service, U. S. Department of Health, Education, and Welfare. Price, $12.50. Pp. 627. Philadelphia: Saunders, 1958.

Ciba Foundation Colloquia on Ageing. Volume 4. Water and Electrolyte Metabolism in Relation to Age and Sex. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.CH., AND MAEVE O'CONNOR, B.A., editors for the Ciba Foundation. Price, $8.50. Pp. 327, with 85 illustrations. Boston: Little, 1958.

Ciba Foundation Symposium on the Neurological Basis of Behaviour, in commemoration of Sir Charles Sherrington, O.M., G.B.E., F.R.S., 1857–1952. G. E. W. WOLSTENHOLME, O.B.E., M.A., M.B., B.CH., AND CECELIA M. O'CONNOR, B.Sc., editors for the Ciba Foundation. Price, $9.00. Pp. 400, with 109 illustrations. Boston: Little, 1958.

News and Personals

MEETINGS

The 12th Clinical Meeting of the American Medical Association will be held in Minneapolis, December 2–5. The House of Delegates will convene at the Leamington Hotel; the scientific portion of the program will be held at the Minneapolis Auditorium.

A special feature of the meeting will be a trans-Atlantic conference between AMA members in Minneapolis and British Medical Association members in Southampton, England. This conference is scheduled for Friday, December 5, at which time the British Association will be holding a clinical session.

Among those planning to attend from Washington are the Medical Society's Delegates, Drs. Raymond T. Holden and Victor R. Alfaro, and the Secretary, Theodore Wiprud.

An editorial in this issue of the MEDICAL ANNALS describes some of the highlights of the forthcoming convention of the **American Association for the Advancement of Science,** which is holding its **125th meeting** at the Sheraton-Park Hotel in Washington, D. C., December 26–31. To physicians, the program of the Section on Medicine will be of special interest.

The Section on Medicine will hold two sessions each day on December 29 and 30. The morning session, December 29 (9:30 a.m.), will consider "Development of the Heart and the Origins of Congenital Heart Disease." Dr. S. R. M. Reynolds, Professor of Anatomy, University of Illinois College of Medicine, will preside. Panelists, in addition to Dr. Reynolds, will be Dr. Alexander Barry, of Ann Arbor, Mich.; Dr. Geoffrey Dawes, Oxford, England; Dr. Forrest H. Adams, Los Angeles; Dr. James G. Wilson, Gainesville, Fla.; and Dr. Josef Warkany, Cincinnati.

The afternoon session, December 29 (2:00 p.m.), will be devoted to "The Pathologic Physiology of Congenital Heart Disease." Presiding will be Dr. Lewis Dexter, Assistant Professor of Medicine, Harvard Medical School. Speakers will be Dr. Maurice Lev, Chicago; Drs. Earl H. Wood and Jesse E. Edwards, both of Rochester, Minn.; and Dr. S. Gilbert Blount, Jr., Denver.

The subject of the morning session, December 30, will be "The Diagnosis of Congenital Heart Disease," with Dr. Andre Cournand, Professor of Medicine, Columbia University College of Physicians and Surgeons, presiding. Participating will be Dr. Lewis Dexter, Boston; Dr. Earl H. Wood, Rochester, Minn.; Dr. Eugene Braunwald, Bethesda, Md.; Dr. F. Mason Sones, Jr., Cleveland; Dr. David Lewis, Philadelphia; and Dr. Howard B. Burchell, Rochester, Minn.

The concluding afternoon session, December 30, will be moderated by Dr. Alfred Blalock, Professor of Surgery, Johns Hopkins University Medical School; the general topic will be "Surgical Therapy of Congenital Heart Disease." The panel will consist of Dr. Henry Swan, Denver; Dr. C. Walton Lillehei, Minneapolis; Dr. John W. Kirklin, Rochester, Minn.; Dr. Robert Gross, Boston; and Dr. Denton Cooley, Houston.

The Association of Military Surgeons of the United States is holding its **65th Annual Convention** at the Hotel Statler-Hilton, November 17–19. An open meeting of special interest will be the **William C. Porter Lecture,** to be given, November 18, in the Presidential Ballroom, at 8:30 p.m. The lecturer will be Dr. Jack R. Ewalt, Commissioner of the Department of Mental Health for the State of Massachusetts; his subject, "Mental Health—U. S. A.: Facts and Fantasies." This lecture was named in honor of Colonel Porter, now deceased, who was one of the early psychiatrists in the Army during World War I. The public, professional and non-professional, is cordially invited to attend.

Colonel Charles R. Mueller, M.C., U.S.A. (Ret.) President of the Association, will open the meeting on November 17 with an address on "Diagnostic

Medicine and Rehabilitation in the Space Age," which is the convention theme.

Two other meetings, both on November 18, will be of special interest to Washington physicians. Brig. General Floyd L. Wergeland, M.C., U.S.A., will talk on "The Medicare Program" in the morning. General Wergeland is Executive Director of the Office for Dependents' Medical Care. In the afternoon, "Occupational Health Problems in Space Flight" will be discussed by a panel of high ranking officers of the Air Force, Army, and Navy.

The Washington Psychiatric Society, the Washington Psychoanalytic Society, and the Medical Society of St. Elizabeths Hospital will hold a joint meeting, November 21, in the Medical Society's Building, beginning at 8:30 p.m. The guest speaker will be Dr. Gregory Zilboorg, of New York City, internationally known psychiatrist, who will speak on "Existential and Psychoanalytic Psychiatry."

The Section on Ophthalmology of the D. C. Medical Society will meet on December 9 at the Kennedy-Warren, with cocktails preceding dinner at 7 p.m., and a program beginning at 8 p.m. The guest speaker will be Dr. Frank B. Walsh, of Baltimore, whose subject is "Changes in the Extraocular Muscles in Systemic Diseases."

Two Postgraduate Courses in Hypersensitivity, of special interest to pediatricians, internists and general practitioners, are being presented by the Allergy Section of the **Research Foundation of Children's Hospital** at the Hospital, on Tuesday nights, from 8 to 10 p.m. Course No. 1, Background in Immunology and Hypersensitivity for Clinicians, is currently in progress; it began November 11.

Course No. 2, on Clinical Hypersensitivity, will begin January 6, 1959 and will continue for five additional evenings. The faculty is comprised of Drs. Harry S. Bernton, Richard H. Todd, Benjamin Lafsky, and William A. Howard, all members of the District Medical Society, and Lt. Colonel H. E. Ratcliffe, Director of the Allergy Department of Walter Reed Army Medical Center.

Both courses are approved for credit by the American Board of Pediatrics and the American Academy of General Practitioners. The registration fee for each course is $35.00, or $50.00 for both. Further information may be received from Dr. Richard H. Todd, Children's Hospital, Washington 9, D. C.

Physicians who are interested in a cruise to Nassau this winter may wish to combine their vacation trip with a medical conference. Information on three such conferences has been transmitted to the Medical Society's offices at the request of Mr. Ralph Creer of the American Medical Association. They are scheduled as follows: **the Sixth Bahamas Medical Conference,** November 28 to December 18; **the First Bahamas Surgical Conference,** December 29 to January 17; **and the Serendipity Session,** January 18 to January 31, 1959.

The British Colonial Hotel, where all the sessions will be held, has made it possible for participants and their parties to avail themselves of its facilities at reduced rates provided that reservations are made by writing directly to Bahamas Conferences, P. O. Box 4037, Fort Lauderdale, Florida (telephone Jackson 3-7303 at Fort Lauderdale). The reduced rates are not available through agents. Programs for the Conferences may be secured from Dr. B. L. Frank, Organizing Physician, 23 East 79th Street, New York 21, N.Y. An official certification of attendance will be issued to participants.

Among physicians who will participate in the Conferences as speakers are several from Washington, including Dr. Joseph F. Fazekas, Chief of Staff, District of Columbia General Hospital; Dr. Edward D. Freis, Chief of Medical Service, Veterans Administration Hospital; and Brig. General Thomas W. Mattingly, Director of Medical Education at the Washington Hospital Center.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia held its regular meeting on September 22, with Dr. Herbert P. Ramsey, Chairman, presiding. Because of the ANNUAL SCIENTIFIC ASSEMBLY in November and the Christmas holidays the following month, the Board voted to change the dates of the next two meetings from the usual fourth Monday of the month to November 3 and December 15, omitting the meeting in October.

The Board voted to rescind all its previous actions remitting dues of physicians in the armed forces. A special committee was appointed to study the matter of remitting dues for physicians in military service.

The Secretary advised the Board that he had received a letter from Colonel Floyd L. Wergeland, of the Office for Dependents' Medical Care, Office of the Surgeon General of the Army, which read in part as follows:

"Will you please express to Dr. Caulk, Dr. Camalier and Dr. Nicklas our deep appreciation for their patience, understanding and sincere efforts in arriving at a Schedule of Allowances. The negotiations were friendly in every way, and Colonel Lowry, the negotiator, appreciates the efforts of your committee."

At the suggestion of the Subcommittee on Child Welfare, Dr. Sander E. Lachman was designated to serve on a steering committee which is planning a conference on nutritional problems of the child in the District of Columbia. The request for a representative came from Dr. Daniel L. Finucane, Director of Public Health. The Board confirmed the appointment of Dr. Lachman.

President Watts submitted the names of the following physicians to comprise the new Committee on Aging: Dr. Jack Kleh, *Chairman*; Drs. Paul F. Dickens, Margaret M. Kenrick, Calvin T. Klopp, Alvin E. Parrish, and Andrew G. Prandoni. Dr. Watts stated that he had designated Dr. Kleh to represent the Society in a conference group organized by the Health and Welfare Council of the National Capital Area which will concern itself with problems of and services to the aging population in the Washington Metropolitan Area. The Board approved the appointment as well as the appointees to the above committee.

The Board recognized the services of Dr. Eloise Kailin in providing newspapers in the city with a daily pollen count during the late summer and early fall months for the past several years. Members were unanimous in voting that an expression of appreciation be directed to her.

Major General Oliver K. Niess will take over the post of **Surgeon General of the United States Air Force** on December 1, 1958. He succeeds **Major General Dan C. Ogle,** who will retire on November 30 after almost 30 years' active service.

General Niess is a native of Belleville, Ill. He graduated from Washington University (St. Louis) School of Medicine in 1927. Following his internship at the Fitzsimons General Hospital in Denver, Colorado, he was assigned to the Philippine Department at Fort McKinley in the Philippine Islands.

MAJOR GENERAL OLIVER NIESS

New Surgeon General of the Air Force

During World War II General Niess held many assignments including Director of Administration in the Office of the Air Surgeon, Washington; Surgeon of the India-China Division, Air Transport Command, Calcutta, India; and Surgeon of the Pacific Division, Air Transport Command, Hawaii. In 1950 he was appointed Air Force member on the Armed Forces Policy Council, Office of the Secretary of Defense. His present post is Command Surgeon of the Pacific Air Forces in Hawaii, a position he has held since September, 1954. During this tour he has been instrumental in establishing medical care for U. S. nationals throughout Southeast Asia.

General Niess is certified by the American Board of Aviation Medicine and is rated as Chief Flight Surgeon and as Aircraft Observer (Medical). He is a

Fellow of the American College of Surgeons, a member of the American Medical Association, the Aero Medical Association, and the Association of Military Surgeons.

General Ogle was named Surgeon of the United States Air Forces in Europe at Wiesbaden, Germany, in 1953, and the following year was recalled to Washington to assume the position of Air Force Surgeon General.

Under his administration the Air Force has realized its goal of an Aeromedical Research Center at Brooks Air Force Base in Texas and the construction of 170 new medical facilities world-wide. His active participation in medical, hospital, and scientific organizations has contributed to high standards of the Air Force military medicine. His plans following retirement have not been announced.

Dr. Edward D. Freis, Chairman of the Research and Training Committee of the Washington Heart Association, calls attention to the availability of **Research Grants-in-aid** to competent investigators in local medical institutions.

The grants are made to nonprofit institutions in direct support of a particular investigator for a specific program of research under his direction. Grants are awarded in support of research in the cardiovascular field or basic sciences related to it in amounts of up to $5,000 per annum for a period of one year. Re-application will be considered for the following year. Applications must be received before May 1 or October 15 to become effective the following July 1 and January 1, respectively.

A Fellowship in Clinical Cardiology (post-doctoral) is open to graduates of approved medical schools for training in the cardiovascular field. The stipend is $3,600 per annum. Applications must be received by November 15, the grant to begin July 1 of the following year.

Stipends of $200 a month for 3 months are made **to students in local colleges** interested in experience in research in sciences basic to medicine, with assignments under a competent sponsor. Applications must be received by May 15.

Further information and application forms may be secured from the Executive Director of the Washington Heart Association, 1154 19th Street, N.W., Washington 6, D. C.

The Washington Psychiatric Society is again offering an essay prize of $100 in open competition to a physician in resident training at any level in psychiatry. The author may choose his own subject for presentation. The papers must be submitted no later than March 1, 1959, to Dr. Marvin L. Adland, Secretary, Chestnut Lodge, Rockville, Md., who will forward them to a Review Committee appointed by the Council of the Society. Members of the Medical Society are urged to pass on this information to residents in psychiatry.

Two Federal agencies, **the National Science Foundation and the Public Health Service,** have announced an **increase in stipend rates for research fellowships** in order to sustain the productive research training programs of the two Federal agencies in non-Federal, nonprofit research institutions. The increase of $200.00 at the pre-doctoral level will raise the stipend to $1,800 for the first year, $2,000 for the intermediate year, and $2,200 for the terminal year. The allowance for each dependent has been increased to $500.00.

The new stipends for both agencies at the post-doctoral level will be $4,500 for the first year and $5,000 for the second year, with $500.00 for each dependent.

National Science Foundation fellowships are awarded in all fields of science, while Public Health Service research fellowships are awarded in health, medical, and related sciences.

The 15th Pan American Sanitary Conference, at its meeting in San Juan, Puerto Rico, September 21 through October 3, voted to change the name of the Pan American Sanitary Organization to **Pan American Health Organization,** believing that the word "health" more accurately describes the character of the organization and its functions in the broad field of public health. The name of the organization's operating arm, the Pan American Sanitary Bureau, remains unchanged.

Dr. Abraham Horwitz, Assistant Director of the National Health Service of Chile, was elected Director of the Pan American Sanitary Bureau for four years, commencing February 1, 1959. He succeeds **Dr. Fred L. Soper,** who will complete his third term on that date.

All delegates paid high tribute to the leadership of Dr. Soper since his first election as Director of the Pan American Sanitary Bureau in 1947, and voted to declare him Director Emeritus of the Bureau and to present him with a gold medal "in recognition of his work in behalf of continental health." Dr. Soper is an Associate member of the District Medical Society.

The AMA News, to be published fortnightly by the **American Medical Association,** made its appearance on September 22, 1958. The first issue, consisting of 16 pages, was enlivened with color and by the use of numerous photographs, cartoons, and drawings. The leading editorial stated that the *News* is intended "to keep physicians informed on legislation affecting the practice of medicine, trends in business and investments, news and court decisions in the medicolegal field, and to report the who, what, when, how and why in the world of medicine." It will also carry articles outside the field of medicine, but of interest to doctors, on such subjects as travel, sports, hobbies, and the arts.

The AMA News, which is sent to all members of the American Medical Association, is an attractive addition to the newspaper field. The Editor is Mr. Jim Reed, with editorial offices at AMA Headquarters. Reporting news from the Washington Metropolitan Area will be **Mr. Harold B. Rogers,** who for many years covered medical news, more recently legislative news, for *The Evening Star.* His telephone number is Federal 3-2610.

The new **National Orthopedic and Rehabilitation Hospital** in Arlington, Va., was dedicated, October 25, on the Hospital's grounds at 2455 Army-Navy Drive. The new Hospital will provide complete medical and surgical facilities for orthopedic and arthritic cases; it will also house a modern and complete rehabilitation center. The four-story structure will have facilities for 100 resident patients and for more than this number of outpatients. The nonprofit institution incorporates the former Anderson Orthopedic Hospital and will utilize its facilities. Dr. O. Anderson Engh is the Medical Director.

A new wing at Howard University School of Medicine was opened with dedicatory ceremonies, September 15. It was formally presented to the Howard Board of Trustees by Mrs. Bertha S. Adkins, who is the new Under Secretary of Health, Education, and Welfare, appointed several months ago. The new wing, which was built at a cost of more than $4½ million, allows for an increase in the medical school enrollment from 300 to 400 students in the four-year course. It is located on the site of the old Dental-Pharmacy building at 4th and W Streets, N.W., and is linked to the recently completed Dental building by the older central Medical School which has been remodeled. The principal speaker at the dedication was Mrs. Agnes E. Meyer, author and lecturer, wife of Eugene Meyer, Chairman of the Board of the Washington Post Company.

Dr. Charles Stanley White, President of the Board of Directors of Doctors Hospital, announced, October 11, the opening of a new addition to the north of the hospital building at 1815 Eye Street, N.W. The new 10-story building will provide 66 additional beds, also 3 new operating rooms, a modern recovery room, clinical laboratory, blood bank, and accommodations for interns and others on the house staff. It was built at a cost of $750,000. Formal dedication will take place in November.

A new million-dollar **Health School,** operated by the District of Columbia, was opened for inspection, October 13. It will carry the name of C. Melvin Sharpe, former president of the Board of Education. Located at 13th and Upshur Streets, N.W., it is adjacent to the old Health School built in 1924 to accommodate tuberculosis patients.

The School opened its doors to 154 physically handicapped children on October 20. It will provide kindergarten facilities for crippled youngsters and secondary school classes for teenagers who have been receiving instruction at home. Most of the pupils are victims of cerebral palsy, but others are crippled by poliomyelitis or disabled in accidents. Its capacity is 180 students.

Applications are coming in from out-of-town families who wish to enroll their children on a tuition-paying basis. This may make it necessary to continue use of the old Health School.

The Women's Medical Society announces that Dr. Inez Edith Wilber is now President, succeeding

THE
Jaycee
CREED

DR. THISTLETHWAITE HONORED BY JAYCEES

Dr. J. Richard Thistlethwaite (right), Chief Medical Officer in surgery at D. C. General Hospital, was awarded the annual Melvin C. Hazen Award by Mr. Daniel C. Bell, President of the American Security and Trust Company, cosponsor of the award, at a luncheon of the Junior Chamber of Commerce, September 11. Dr. Thistlethwaite was voted the outstanding young man in the District Government as a tribute to his exceptional personal character and in recognition of his achievements and services at the Hospital.

Dr. Lois I. Platt, who resigned. The new Vice President and President-elect is Dr. Alma Jane Speer. Other officers are Dr. Aurora F. Alberti, Corresponding Secretary; Dr. Bertha E. VanGelderen, Recording ing Secretary; and Dr. Dorothy Donley Dowd, Treasurer.

Brig. General Francis W. Pruitt has been named Chief of the Department of Medicine at Walter Reed Army Hospital, succeeding Brig. General Thomas W. Mattingly, who retired from active duty in August and is now associated with the Washington Hospital Center. General Pruitt is Consulting Editor to the MEDICAL ANNALS OF THE DISTRICT OF COLUMBIA.

Dr. H. van Zile Hyde has been appointed **Assistant to the Surgeon General for International Health.** His duties will include liaison with the Department of State and other governmental agencies concerned with international health. He will continue to represent the United States on the Executive Board of the World Health Organization, a position to which he was appointed by President Eisenhower. Dr. Hyde has been Chief of the Service's Division of International Health for the last 5 years.

The Atomic Energy Commission has awarded grants totaling more than $100,000 to educational institutions in Maryland, Virginia, and the District of Columbia. Georgetown received a grant of $1,740 to enable scientists to try to determine the effects of cortisone on the liver. At George Washington an award of $13,984 will be used for research to continue study on anti-radiation drugs. Howard University was granted $9,000 to investigate blood pressure changes in dogs with cardiovascular diseases.

PERSONALS

Dr. Desmond S. O'Doherty has succeeded **Dr. Francis M. Forster** as Professor and Director of the Department of Neurology at Georgetown University School of Medicine. Dr. Forster recently resigned from the faculty of Georgetown to become Chairman of the Department of Neurology at the University of Wisconsin.

Dr. O'Doherty is a graduate of Jefferson Medical College, Philadelphia. He joined the Georgetown faculty in 1951, and has served as Associate Professor of Neurology prior to his taking over the executive duties of this department.

Dr. Forster had distinguished himself in the field of neurology before coming to Georgetown in 1950. In 1953 he was made Dean of the Medical School, which post he held along with the executive duties of the Department of Neurology until July 1 of this year, when he relinquished the deanship in order to devote his full time to the field of neurology.

Dr. Robert H. Barter has been promoted from Associate Professor to Professor of Obstetrics and Gynecology and Executive Officer of the Department at the George Washington University School of Medicine. Dr. Barter is a graduate (1940) of the

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subject or Title*	*Organization*
August 25	Dr. John R. Cavanagh	The Teacher and Mental Health	Sisters of Providence Hospital
October 14	Dr. Preston A. McLendon, *Moderator* Dr. Daniel L. Finucane Dr. Harold M. Hobart	The School Health Program from the Viewpoint of Medicine and Education; panel discussion	Public meeting at Roosevelt High School
October 27	Dr. Henry P. Laughlin	Your Nerves and You	Montgomery County (Md.) Library, Adult Education Program
November 17	Dr. Winfred Overholser	Tension in Family Life	Lecture Series, Hillcrest Children's Center
November 20	Dr. Henry P. Laughlin	Emotional Problems of the Housewife	American Association of University Women, Kensington Chapter

University of Wisconsin School of Medicine. He joined the George Washington faculty in 1948.

Open Your Eyes—Give the Pupils a Chance. This slogan, which is displayed on 1,500 posters throughout the Washington Metropolitan Area, was submitted to the D. C. Department of Motor Vehicles by **Dr. Thomas R. Rees.** This Department referred it to the Public Education Committee of the Commissioners' Traffic Advisory Board. It has been called one of the best safety slogans ever used in the District of Columbia.

Dr. Frederick Y. Donn was awarded a five-year certificate in recognition of his excellent work at the McCluer Tumor Clinic at the Alexandria Community Health Center. The certificate was presented to Dr. Donn during the Annual Meeting of the Alexandria Unit of the American Cancer Society, September 29, by Dr. Alvin C. Wyman, Medical Director of the Tumor Clinic.

At the annual convocation of the **American College of Surgeons** in Chicago, October 10, 13 physicians from the Washington Metropolitan Area were inducted into fellowship. Twelve are members of the District Medical Society: Drs. David M. French, John P. Gallagher, Frederick B. Hartsock, William R. Hyde, John J. Kuhn, Philip H. Philbin, Mitchell W. Spellman, and James R. Thistlethwaite, all Active members; Dr. Thomas G. Edison, Silver Spring, and Dr. Joseph O. Romness, Arlington, Affiliate members; and Dr. Neville K. Connolly, Washington, and Dr. Christopher J. Murphy, Jr., Alexandria, Associate members.

Dr. Newell W. Philpott, of Montreal, assumed the office of President of the College at the convocation. The new President-elect is Dr. Owen H. Wangensteen, of Minneapolis.

Dr. Joseph W. Still, formerly Assistant Professor of Physiology at George Washington University, is now Director of the Bucks County (Pa.) Health Department, with offices in Doylestown. He began his new duties on October 1. Dr. Still succeeds Dr. H. Jackson Davis, who resigned the position to return to his home county of Rensselaer, New York, as Health Director.

Theodore Wiprud, Secretary of the Medical Society, has been appointed to represent medicine on the Committee on Public Information of the American Association for the Advancement of Science, which will publicize the 125th meeting of the AAAS, December 26–31.

Dr. Christine W. Kehne, Director of the Psychiatric Youth Service, Montgomery County (Md.) Health Department, is on leave of absence in order to serve a fellowship at Children's Hospital awarded her by the National Institute of Mental Health.

In her absence, Dr. Gaston deLemos is Acting Director of the Youth Service. Dr. deLemos has been a part-time member of the staff during the past year and has also served on the staff of the Fairfax County (Va.) Child Guidance Clinic.

CORRESPONDENCE

WASHINGTON, D. C., September 11, 1958

TO MR. WIPRUD:

The majority of local hospitals recently have joined with other hospitals in the Nation to require that all foreign Interns and Residents pass an examination before being accepted for a staff position.

The foreign physician should write to: Dr. Dean F. Smiley, Secretary, Educational Council for Foreign Medical Graduates, 1710 Orrington Avenue, Evanston, Illinois.

He will be sent an application form and all data regarding the date and time and place of the examination. Following completion of this examination, the physician should apply to the hospital for the staff position desired.

This same procedure should be followed on all similar requests in the future.

Sincerely yours,
WILLIAM M. BUCHER
Executive Director, Hospital Council of the National Capital Area, Inc.

WASHINGTON D. C., September 12, 1958

TO MR. WIPRUD:

The Board of Directors of the Graduate Nurses' Association has authorized the members of the Private Duty Section, GNA, to increase their fee for 8-hour service from $16.00 to $18.00, beginning October 1, 1958. The fee will be the same for all types of cases. There will no longer be an extra charge for mental, alcoholic and other special services, or for evening duty.

You will readily understand the necessity for this action, as there has been no increase in the basic fee since June, 1956, although living costs have increased steadily.

May we rely upon your coöperation in informing your members of the new fees and in asking their help in interpreting to the public not only the economic necessity for this action but also the value of the private duty nurse's service in restoring the patient to health.

With sincere thanks to you for your many courtesies, I remain,

Very truly yours,
EDITH M. BEATTIE, R.N.
Executive Secretary, Graduate Nurses' Association of the District of Columbia

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WASHINGTON, D. C., September 17, 1958

TO DR. YATER:

I am writing to acquaint your readers of the existence of a club called Sister Niedfield's Brothers. Sister Niedfield is both a nun and a doctor who served a surgical residency at Georgetown University Medical Center. At the present time she is Chief of Surgery at Holy Family Hospital, Mandar, India. This hospital averages 600 major surgical cases a year, with 3,000 total inpatients.

The purpose of the club, "Sister Niedfield's Brothers," is to aid Sister Niedfield as regards surgical instruments and other necessary medical supplies. Yearly dues are $5.00. Last year a sum of $500 was raised for which a set of bronchoscopic and esophagoscopic instruments was purchased. Contributions this year will be mainly to purchase urological instruments, especially cystoscopes.

We would be most happy to enroll any of your readers as a member in this club. Dues may be sent to my office at 900 17th Street, N.W., Washington 6, D. C.

Sincerely yours,
GEORGE WILLIAM WARE, M.D.

CHEVALIER JACKSON, M.D.

(1865–1958)

Dr. Chevalier Jackson, an Honorary member of the District Medical Society since 1932, world renowned because of his development of the bronchoscope, died, August 16, 1958, at Temple University Hospital in Philadelphia.

Dr. Jackson was a native of Pittsburgh, Penn., where he was born, November 4, 1865, to William S. and Katharine Morange Jackson. He attended the public schools of Pittsburgh and graduated from Western University of Pennsylvania (now the University of Pittsburgh) in 1883. In 1886 he received his degree in medicine from Jefferson Medical College in Philadelphia. He studied abroad in European clinics at various times.

Credit for originating the bronchoscope is given to a German, Dr. Gustav Killian, but medical history records Dr. Jackson as perfecter of the technic. It took him 22 years to learn how to remove an open safety pin from a child's throat. During the years when he was in active practice, patients from all over the world came to Philadelphia for the removal of foreign bodies which they had swallowed.

He founded the bronchoscopic clinic at Temple University Hospital which bears his name; it is now headed by his son, Dr. Chevalier L. Jackson, who is his sole survivor. His wife, Alice Bennett White Jackson, preceded him in death last December.

For his contributions to medicine, which included not only new medical devices but textbooks and articles in the fields of surgery and laryngology, he was honored by the United States and many foreign nations. He received the $10,000 Philadelphia Bok Award for Great Accomplishment in 1927, when it was reported that he had saved the lives of 1,800 persons. The American Medical Association gave him its Distinguished Service Medal in 1940.

In August 1941 *The Rotarian* carried an article, written by S. J. Woolf, artist and interviewer, which gave a warm appraisal of Dr. Jackson the man, including his activities in retirement (he was then 76 years): "Now that he has given up all clinical work, he busies himself studying the latest medical books, tinkering with new gadgets and improving old ones." Painting, sketching, writing, and nature study were other hobbies which he had carried on from his youth.

The same article contains many interesting sidelights on Dr. Jackson, among them the fact that he was ambidextrous and believed that all children should be so trained. Dr. Jackson was one of the first specialists at a time when the medical profession thought that any doctor should be able to treat anything, and those physicians who did confine their practice to one field were in danger of being expelled from medical societies.

Dr. Jackson was a diplomate of the American Board of Otolaryngology and held active or honorary membership in many local (Philadelphia), national, and international medical and surgical societies. An autobiography, "The Life of Chevalier Jackson," was published by the Macmillan Company in 1938.

SIDNEY CHARLES COUSINS, M.D.
(1893–1958)

Dr. Sidney C. Cousins, family physician to thousands of patients during his long career in the Chevy Chase area and beloved by his colleagues, died, October 11, 1958, in a San Francisco hospital after becoming ill while en route to Honolulu for a vacation.

Dr. Cousins, a native of London, was born, January 23, 1893, to William and Mary Cousins. He received his early education in private schools in England, and his high school education in Washington, D. C., where he graduated from McKinley High School.

He received his medical degree from George Washington University School of Medicine in 1916, following which he interned for a year at Emergency Hospital and spent a year in resident training at Garfield Memorial Hospital. He entered military service with the U. S. Army during World War I and served with the A.E.F. in Europe. He was attached to Mobile Hospital No. 1, which ministered to soldiers in the Meuse and Argonne campaigns. Upon his return to Washington, he joined the staff of the Veterans Administration (Mt. Alto) Hospital.

Dr. Cousins had maintained an office at 3921 Ingomar Street, N.W., for more than 30 years. His home was at 3016 Tilden Street, N.W.

An Active member of the District Medical Society since 1920, he had served on many of its committees. He was a member of the American Medical Association, the Washington Gastroenterological Society, and the George Washington University Medical Society. He belonged to St. Alban's Church, and was a member of the Burning Tree Country Club and the Chevy Chase Club.

He is survived by his wife, Mrs. Florence Hall Cousins; a son, Sidney C. Cousins, Jr., of Bethesda, Md.; two daughters, Mrs. Mary Elizabeth Paterra, of Hyattsville, Md., and Miss Joan Lee Cousins, of Baltimore, Md.; a brother, Christopher Cousins, of Silver Spring, Md., and three sisters residing in California.

JUSTIN EVERETT LACY, M.D.

(1878–1958)

Dr. Justin E. Lacy, who was Chief of the Eye, Ear, Nose and Throat Division of the Diagnostic Center of the Veterans Administration (Mt. Alto) Hospital before he retired in 1948, died, August 28, 1958, at his residence, 4201 Massachusetts Avenue, N.W.

Dr. Lacy was born in Shelbyville, Tenn., October 18, 1878. He received his medical degree from Vanderbilt University in 1901.

He practiced medicine in Tennessee from 1902 to 1917, when he entered military service during World War I. He served in the Army Medical Corps with the rank of Captain from 1917 to 1920. He stayed on in Government service, joining the staff of the Public Health Service in 1921. In 1925 he became associated with the Veterans Administration. He was elected to Active membership in the Medical Society of D. C. in 1947, but when forced to retire from practice because of ill health he changed his membership to Associate.

He is survived by his wife, Mrs. Mae Kelley Lacy; one son, Dr. Justin E. Lacy, Jr., of Rochester, N.Y.; and four daughters, Mrs. J. B. Mankin, of Knoxville, Tenn., Mrs. Malcolm C. Hill, of Sparta, Tenn., Mrs. Marsden Blois, of Atherton, Calif., and Mrs. Kathleen Winsor, of 3700 Massachusetts Avenue, N.W.

Disability Evaluation—Threadgill

(*Continued from page 578*)

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BIBLIOGRAPHY

1. Krusen, E. M., and Ford, D. E.: Compensation factor in low back injuries. J.A.M.A., 1958, **166**, 1128.
2. Haggart, G. E., and Grannis, W. R.: Management of low back and sciatic pain. Am. J. Surg., 1953, **85**, 339.
3. McBride, E. D.: Disability Evaluation: Principles of Treatment of Compensable Injuries, 5th ed. Philadelphia: Lippincott, 1953.
4. Watts, J. W.: Disability and second injury fund legislation (President's Page). M. Ann. District of Columbia, 1958, **27**, 133.
5. Committee on Medical Rating of Physical Impairment: A Guide to the Evaluation of Permanent Impairment of the Extremities and Back. J.A.M.A., Special Edition, February 15, 1958.
6. Burch, G. E., Myers, H. L., Porter, R. R., and Schaffer, N.: Objective studies of some physiologic responses in mild chronic trenchfoot. Bull. Johns Hopkins Hosp., 1947, **80**, 1.

Membership

(*Continued from page 602*)

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Miroslava Vozenilek

Resigned
Active

Henry R. Pear
Julian S. Sachs
William H. Weidman
A. Contee Thompson
C. Allen Wall

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Clifford E. Bagley

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*A Symposium on the Pharmacologic Effects of Dartal on the Liver, Chicago, Searle Research Laboratories, Feb. 7, 1958.

Book Reviews

Orthopedic Diseases: Physiology-Pathology-Radiology. Ernest Aegerter, M.D., and John A. Kirkpatrick, Jr., M.D. Price, $12.50. Pp. 602, with 354 figures. Philadelphia: Saunders, 1958.

The authors' avowed purpose is to provide a book intended for the clinician for diagnostic purposes, for the radiologist, for the pathologist, the young specialist who wants to pass his Board, and the medical student. In this I believe they have succeeded.

Understanding of bone pathology and physiology has been meager and is still far from complete; but the shroud of ignorance is being penetrated by the quickened interest of investigators armed with new tools and technics, including histochemistry, immunologic chemistry, radioactive isotopes which probe within the cell membrane, the ability to section undemineralized bone, microradiography, X-ray defraction, and phase, ultraviolet and electron microscopy. These are well described in the opening chapters.

The contents consist of four principal categories: General Consideration of Connective Tissues, Disturbances in Skeletal Development, Disturbances in Normally Formed Skeleton, and Tumors and Tumor-like Processes. These are presented clearly and comprehensively with excellent illustrations and bibliography. The work is a single volume of 588 pages. It is easy to manage. The index facilitates ready reference.

This volume is timely in presenting information only recently acquired. The authors make no claim to originality but propose to present this material in a readily available form. I think that they have done it.

Carl Berg, M.D.

A Primer on Common Functional Disorders—Practical Diagnosis and Management. Jack W. Fleming, M.D., with illustrations by Jerry Robinson Price, $5.00. Pp. 174. Boston: Little, 1958.

The increased interest in functional disease makes this volume of timely importance. It is particularly valuable to those practitioners who are having difficulty in planning treatment for psychosomatic conditions.

The outline on patient management, being arranged in treatment levels, will be found very helpful as will the considerations of how far the average practitioner should try to carry a patient before referral to a psychiatrist. Those conditions requiring immediate psychiatric therapy are well outlined.

The illustrative sketches are amusing and well done, and will serve to demonstrate to a patient the nature and mechanism of his particular syndrome.

John D. Foley, M.D.

Modern Clinical Psychiatry, 5th ed. Arthur P. Noyes, M.D., and Lawrence C. Kolb, M.D. Price, $8.00. Pp. 694. Philadelphia: Saunders, 1958.

The first edition of this work appeared in 1934. Its worth as a medical school textbook in psychiatry was established then and it continues to be used as a required text in many medical schools. It has been kept abreast of developments in the field of psychiatry by the publication of new editions at comparatively frequent intervals. Up to now this book was written solely by Dr. Noyes. This new edition introduces Dr. Kolb as a collaborator. It has a new chapter entitled "Psychiatry and the Law." The type is larger than in the previous edition, making it easier to read. The format of the bibliography at the end of each chapter has been changed to make it easier to consult.

On the whole this book can be considered a good reference textbook in psychiatry for medical students and physicians. Its content is sound, the bibliographies at the end of chapters are reasonably complete, and the index is adequate. The chapters on therapy have been brought up to date. Not much change appeared in the first few chapters which have to do with history, definitions, and descriptions and classification of mental diseases.

While this reviewer agrees with most of the material which appears in this book, there are a few points which I question. In my experience the incidence of jaundice as a complication of Thorazine treatment is less than 1 per cent, and not 4 per cent as quoted in the book. To me it does not appear that the authors stress sufficiently the need to accompany the use of tranquilizers with psychotherapy. As might be expected, the book does not mention many of the new tranquilizers and the new dosage forms which have appeared in the last year.

The new chapter on "Psychiatry and the Law" is as complete as such a chapter can be in a textbook on psychiatry. I was somewhat amused by a statement on page 677: "He will therefore not express any opinion as to whether or not the defendant can distinguish between right and wrong." This may be applicable in some jurisdictions but is not in most, not even in the District of Columbia.

Morris Kleinerman, M.D.

(Continued on page 48)

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(1) Hagedorn, A. B.: Proc. Staff Meet. Mayo Clin. **32**:705 (Dec. 11) 1957.
(2) Best, W. R.; Louis, J., and Limarzi, L. R.: M. Clin. North America (Jan.) 1958, p. 3.

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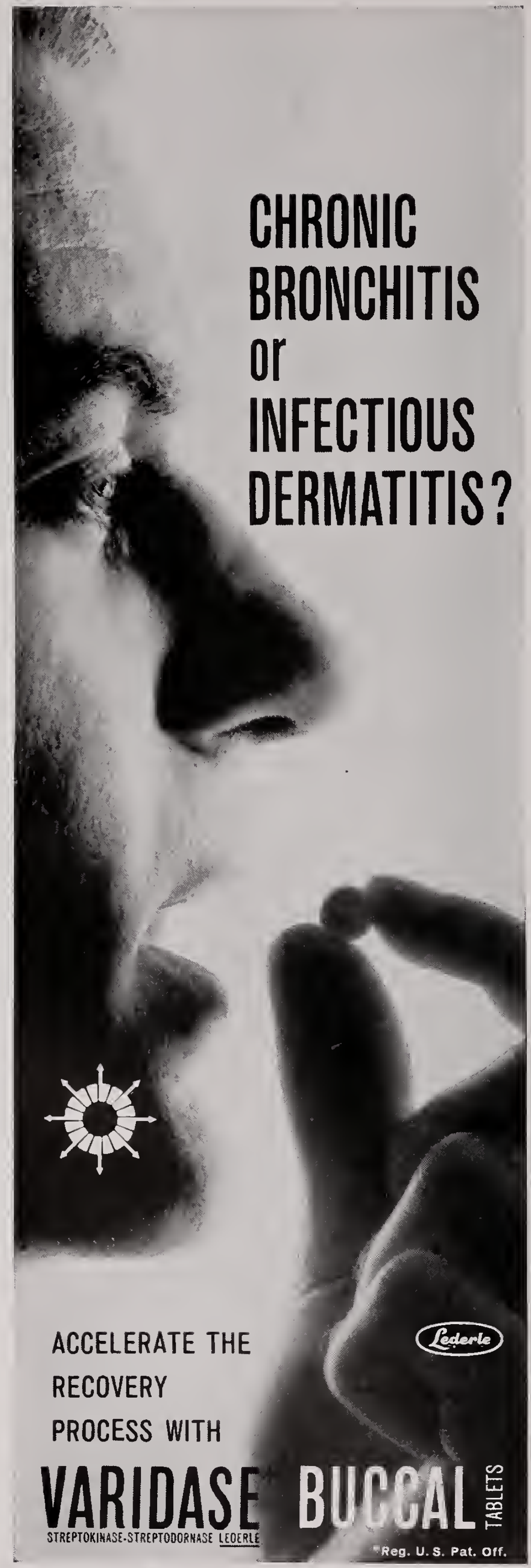

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Book Reviews

(*Continued from page 46*)

Aids to Medical Diagnosis, 8th ed. G. E. Frederick Sutton, M.C., M.D. (Lond.), F.R.C.P. Price, $3.50. Pp. 399. London: Baillière, Tindall and Cox, 1958. Baltimore: Williams & Wilkins, exclusive U. S. agents.

This extremely interesting book, revised by the eminent English physician, Dr. Sutton, was found to contain a wealth of concisely worded information out of all keeping with its small size.

The first chapter describes the signs, symptoms, diagnosis and differential diagnosis of the infectious childhood diseases, and the following chapters are divided into anatomical chapters such as Diseases of the Kidneys, Disorders of the Abdomen, Diseases of the Heart and Blood Vessels, etc. The last chapter is devoted to a very well written, short and easily understood description of the electroencephalogram and its diagnostic value. There is an additional chapter on diseases of the nervous system, which is one of the longest in the book.

Disorders of the abdomen are taken up in the usual anatomical fashion in the discussion of the esophagus and stomach, but the remainder of the gastrointestinal tract is discussed by giving the differential diagnosis for various signs and symptoms, such as diarrhea, constipation, general and local enlargements of the abdomen, and pain or tenderness in the various abdominal quadrants. Diseases of the liver and pancreas are discussed under separate headings.

Disorders of the blood are discussed in the usual order of diseases of the red blood cells and the white blood cells, followed by an interesting and informative discussion of the hemorrhagic diseases.

The section on heart disease contains a special discussion of the electrocardiogram, and the whole chapter is profusely illustrated with well labeled electrocardiograms. Cardiac arrhythmias are well described and illustrated and the differential diagnosis of many cardiac signs and symptoms is also taken up in this chapter.

Diseases of the lungs and pleurae are not as well organized as some of the other chapters since most of the section is devoted to a discussion of specific diseases rather than the signs and symptoms of this system. Although the diseases are well described, it is difficult to use this section for differential diagnostic purposes as with the other sections.

Diseases of the endocrine organs are also handled anatomically; but with the help of a large number of tables in which the specific causes of specific symptoms are enumerated, this chapter also emerges quite easily understandable. The same applies to the chapter on diseases of the kidneys.

Unquestionably the best chapter in the entire book is the one on the nervous system. The entire brain is described and discussed anatomically and physiologically almost without reference to disease. Following this is a lengthy differential discussion of almost every diagnostic sign and symptom associated with this system,

(*Continued on page 50*)

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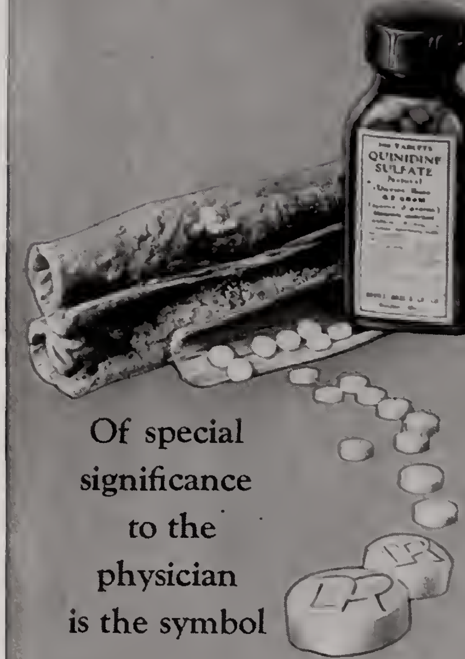

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Book Reviews

(*Continued from page 48*)

each discussed briefly but with remarkable content of material. Many drawings, diagrams and tables add to the overall value of this section.

Although this book was apparently written for the aid of the student it is my sincere belief that most physicians who are seeking a small text for medical differential diagnostic purposes will find what they are looking for in this very well written, easily read, and informative text.

Aaron G. Saidman, M.D.

Surgery in Infancy and Childhood. A Handbook for Medical Students and General Practitioners. Matthew White, M.A., M.B., Ch.B., F.R.F.P.S. (Glas.), F.R.C.S. (Edin.), and Wallace M. Dennison, M.D., F.R.F.P.S. (Glas.), F.R.C.S. (Edin.), F.I.C.S. Price, $9.50. Pp. 444, with 266 illustrations. Edinburgh: Livingstone, 1958. Baltimore: Williams & Wilkins, exclusive U. S. agents.

Although the authors of this volume regard it as a "handbook for medical students and general practitioners" only, I feel their modesty overshadows their valor in writing this book.

I don't quite agree that this should be for medical students who are merely students and whose training is limited and more theoretical than practical to the approach of the various entities of disease and pathology. Nor would I put the general practitioner on the medical student level, for doing so either raises the status or "know how" of the student and/or lowers the same of the general practitioner.

On the other hand, this is a well written and compiled book, covering the various anomalies, ailments, and pathologic entities of infants and children amenable to therapy and surgical procedures. The approach is clear and practical and the problems are well illustrated.

It is clearly written, brief, concise, and to the point, and the print is good, all of which makes for easy and pleasant reading. It deals with differences of pathology between adults and children, covers briefly pre- and postoperative care, anesthesia, fluid balance, feedings, and the psychologic aspects of the child who is to undergo surgery.

Although it does not describe surgical technic, procedure, or specific medicinal therapy, this book should be read and in the library of all physicians that care for infants and children. It is a good review and refresher for the pediatrician, pediatric surgeon, anesthetist, orthopod, and general practitioner as well as the G.U. man, chest and heart surgeon, and the plastic and neurosurgeon.

To the point and more in the nature of a summary, it would enhance any physician's capability in handling infants and children. It is a time-saving reference book for the busy practitioner.

S. M. Novak, M.D.

MEDICAL ANNALS
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SPONTANEOUS INTERNAL BILIARY FISTULA*

Part I

LESTER KAROTKIN, M.D.
Houston, Texas

BROADLY DEFINED, a spontaneous internal biliary fistula (SIBF) is a pathologic communication between some portion of the biliary tract and an internal organ or body space. These communications are rather rare, particularly in view of the great frequency of calculous disease of the biliary tract, the foremost pathologic antecedent of internal biliary fistulas. Any portion of the biliary tract may be involved in the fistula formation, communicating with one or more of an amazing variety of internal structures. The most frequent among these fistulas are the communications between the gallbladder and the neighboring portions of the gastrointestinal tract, duodenum, colon and stomach. Far less common are fistulas between the extrahepatic bile ducts and these enteric organs. More rarely yet, various parts of the biliary system have been known to communicate with distant structures: small bowel or colon, pleural space or bronchi, hepatic artery or portal vein, and genitourinary organs. Interbiliary communications, rarely, have been reported also. Since there are few characteristic clinical manifestations of the presence of internal biliary fistulas, suspicion of their presence is seldom aroused prior to surgical disclosure or autopsy. In the past 3 decades ever-increasing numbers of cases have been recognized clinically, due in large part to the increased use of roentgenologic examination. In earlier years the clinical diagnosis was realized only upon the occurrence of such telltale manifestations as the vomiting of a large gallstone, passage of a large gallstone per rectum, or the development of gallstone ileus.

Today the well-informed clinician, with an ever-expanding diagnostic armamentarium, strives to disclose obscure internal diseases which eluded his predecessors for many years. The purpose of this paper is to augment his armamentarium by a fuller understanding of spontaneous internal biliary fistulas.

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*EDITOR'S NOTE: This is Part I of a thesis prepared in furtherance of advancement to Fellowship in the American College of Physicians. Part II will appear in the January 1959 issue of the MEDICAL ANNALS.

INCIDENCE

Spontaneous internal biliary fistulas are perhaps becoming more rare because of expanding diagnostic services, early cholecystectomy for gallbladder disease, and the abandonment of definitive cholecystostomy. Table 1 shows the incidence in various autopsy series reported in the literature.

TABLE 1

Incidence of SIBF in Reported Autopsy Series

Author	Dates	No. Cases	Material Reviewed	Per cent SIBFs
Roth, Schroeder, and Schloth[1]	1872–1881	14	166 autopsies on patients dying of gallstones	8
Courvoisier[2]	1890		Autopsies on patients dying of gallbladder disease	4.8
Courvoisier[2]	1890		Autopsies in which gallstones are found	2.6
Borman and Rigler[3]	1937	24	19,474 autopsies, University of Minnesota	0.12
Davison and Aries[4]	1938	7	6,000 autopsies, Cook County (Chicago) Hospital	0.12
Puig-Sureda[5]	1951		66,340 autopsies in which gallstones were found	0.22

The more recent reports indicate an incidence between 1 and 2 cases per 1,000 autopsies. In the experience of individual physicians and surgeons it has been unusual to encounter more than a few cases in a lifetime of practice. In a review of 15,677 surgical operations at the University of Pennsylvania between 1922 and 1939, Eliason and Stevens[6] found only 5 cases (0.03 per cent). Covering the period 1915 to 1939, Dean[7] found 29 cases in the records of the University of Iowa Hospital, comprising 1.2 per cent of all cases of cholecystitis seen during this time. At the Lahey Clinic, from 1927 to 1942, Tracey and McKell[8] were able to gather 21 cases. Sullivan and Hamman[9] found 2 cases among 60 patients with biliary tract disease coming to operation or autopsy at the VA Hospital, Wood, Wisconsin. Another view of the frequency with which these lesions can be expected may be obtained from a consideration of the percentage of them found at biliary tract operations. A selection of reports illustrating this type of data is presented chronologically in table 2.

TABLE 2

Incidence of SIBF in Biliary Tract Surgery Series

Author	Dates	No. Cases	Material Reviewed	Per cent SIBFs
Kehr[10]	1913	10	200 gallbladder operations	5
Bernhard[11]	1934	109	6,263 biliary operations	1.8
Puestow[12]	1942	16	500 operations for benign biliary tract disease (personal series)	3.2
Cowley and Harkins[13]	1943	2	2,750 gallbladder operations	0.73
Hicken and Coray[14]	1946	15	381 biliary tract operations	4.2
Mirizzi[15]	1951	78	2,613 operations on the biliary tract	3
Epperson and Walters[16]	1953	84	9,716 operations on the biliary tract	0.86

Further insight may be gained from a review of reports on cases of gallstone ileus. Save a possible few rare exceptions, gallstones producing intestinal obstruction gain access to the intestinal tract via spontaneous internal biliary fistulas. Thus, for practical considerations a case of gallstone ileus may be accepted as a case of SIBF as well. Vick[17] tabulated 47 cases from a collection of 3,625 cases of cholelithiasis (1.3 per cent). Shell and Brown[18] found 3 cases among 225 cases of cholelithiasis (1.3 per cent). In a collection of cases from the literature Hand and Gilmore [19] found 208 cases of gallstone ileus among 12,153 cases of intestinal obstruction from all causes (1.7 per cent).

The age incidence falls most heavily in the fifth and sixth decades of life, fistula development being a very late event in the course of either biliary tract disease or peptic ulcer. In Judd and Burden's series[20] of 153 cases, for example, 88 patients were in the 50- to 70-year-age group. Epperson and Walters[16] found the average age to be 61.8 years among 57 women and 57.9 years among 24 men with SIBF. Ages ranged from 27 years to 87 years. Biliary fistulas are found about 3 times as frequently in women as in men, a fact to be anticipated in view of the equal predominance of cholelithiasis in women and the predominance of cholelithiasis as a cause of biliary fistulas.

Types of SIBF and Their Relative Frequency

The relative incidence of the more common types of SIBF, given in approximate percentage, is as follows:

Cholecystoduodenal	60
Cholecystocolic	24
Choledochoduodenal	10
Cholecystogastric	6
All others less than	1

In a review of 272 cases of all types Hicken and Coray[14] found the gallbladder involved in 88 per cent and the common duct in 11 per cent. At the enteric end, fistulas involved the duodenum in 69 per cent, the colon in 26 per cent, and the stomach in 4.4 per cent. Most reports covering large groups of cases include a few of the bizarre types of fistula, these being more common in the older literature. The increasing availability of earlier diagnosis and surgical correction of biliary tract disease in the last 50 years probably account largely for the diminishing occurrence of these cases. Table 3 presents a classification which includes even the most extraordinary forms of SIBF encountered.

TABLE 3

Classification of SIBFs

Duodenal
  Cholecystoduodenal
  Choledochoduodenal
  From cystic duct to duodenum
  Hepaticoduodenal
  From reformed gallbladder (dilated stump of cystic duct) to duodenum
Colonic
  Cholecystocolic
  Choledochocolic
Gastric
  Cholecystogastric
  Choledochogastric
  Hepaticogastric
Jejunal
  Cholecystojejunal
Ileal
  Cholecysto-ileal
Mixed (or complex)
  From biliary tract to 2 or more viscera
Interbiliary
  From 1 portion of biliary tract to another
Urogenital
  From biliary tract to kidney, pelvis, ureter, urinary bladder, uterus, vagina or ovarian cyst
Thoracic
  Cholecystobronchial
  Choledochobronchial
  Hepatobronchial
  From biliary tract to pleura
  From biliary tract to pericardium
Vascular
  From biliary tract to portal vein
  From biliary tract to hepatic artery

Pathogenesis

Cholelithiasis and cholecystitis are the determining factors in the development of the vast majority of spontaneous internal biliary fistulas. Eliason and Stevens[6] and Hicken and Coray[14] estimated that this etiologic relationship is demonstrable in 90 per cent of reported cases. Peptic ulcers and malignant disease account for practically all of the remainder.

Cholelithiasis serves as the initiating factor in the development of SIBF because of the propensity for gallstones to cause biliary tract obstruction. The resulting bile stasis favors the occurrence of infection. Acute cholecystitis, with accompanying pericholecystitis, commonly eventuates in adhesions between the gallbladder and adjacent viscera. Following a severe inflammatory process, or after repeated episodes, the adherent organs become intimately bound together by scar tissue. A subsequent acute cholecystitis may lead to a perforation through the adherent visceral walls. The precipitating factors probably responsible are increased pressure within the gallbladder, necrotizing inflammation, and erosive pressure of gallstones.

In a minority of instances a pericholecystic abscess is found to have served as the fistulous tract.[16, 21, 22, 23] In such cases it seems likely that empyema of the gallbladder with perforation has resulted in a pericholecystic abscess which later has ruptured into the intestine. Johnstone and Ostendorph[22] found 4 cases of SIBF among 32 cases of rupture of the gallbladder in a study of 12,000 consecutive autopsies.

Calculi may pass through the fistulous aperture at the time it is formed or at any subsequent time. They may become impacted in the fistula, pass into the bowel, or fill an intervening abscess.

Obliteration of the cystic duct by inflammatory stricture or by an impacted stone is found in many cases of cholecystenteric fistula. Grey Turner[24] postulated a very logical concept of fistula formation. He thought that impaction of a stone in the cystic duct usually serves as the initiating event. Acute empyema of the gallbladder ensues and rupture into the intestine may occur if the gallbladder has previously become adherent. The contents of the gallbladder drain into the bowel. With its internal tension relieved, the gallbladder begins to contract. As fibrosis furthers the shrinkage, residual stones are pressed against the opening in the bowel, eventually being forced into it. Twiss and Oppenheim[25] postulated that the fistula may be initiated following infection in the Rokitansky-Aschoff sinuses of the gallbladder.

Obstruction of the common bile duct often plays a prominent part in the pathogenesis of internal biliary fistulas. Common duct stones, or stricture due to previous surgical trauma, are often found at operation or autopsy in association with SIBF. When previous cholecystitis has set the stage by causing adhesion between gallbladder and gastrointestinal tract, common duct obstruction may be the precipitating event resulting in fistula formation. Indeed, when complete obstruction of the common duct is present, the subsequent development of a cholecystenteric fistula may be regarded as a lifesaving event.

Jaundice may or may not be present in such cases, depending on the patency of the fistula. If the latter is large enough to allow free flow of the bile into the bowel, and provided the cystic duct remains patent, adequate bypass is thus provided for the obstructed choledochus. In some instances the fistula may undergo cicatricial contraction and its lumen may become inadequate to provide an efficient by-pass. Once an internal biliary fistula has been formed there is a strong tendency for it to close by fibrotic contraction.[26] Many times at operation or autopsy a minute fistulous tract,[27, 28] a fibrotic cord, or dense adhesions[14] have been found where a large fistulous opening was known to exist days or weeks before. In exceptional cases fistulas have apparently remained patent over a period of years, as shown by repeated clinical and roentgenologic evidence of their presence.[29, 30, 31] The presence of common duct obstruction is often a prime factor in perpetuating the patency of a fistula.[7] The presence of residual stones in the gallbladder is likewise a perpetuating factor, these being extruded through the fistulous opening from time to time or lodging in the fistula. It is not uncommon at operation or autopsy in these cases to find a large stone impacted in the fistulous opening[32] and lying partly in the gallbladder and partly in the bowel. In a few instances stones have been found imbedded in the fibrotic residual of an obliterated fistula.

Peptic ulcers account for perhaps 5 to 6 per cent of SIBFs.[14, 16] A long-standing or recurring ulcer involving the posterior wall of the proximal portion of the duodenum may erode into the common bile duct and produce a choledochoduodenal fistula. In the recent literature most cases[33] of choledochoduodenal fistula have been associated with duodenal ulcers, but in the older literature many of them were ascribed to common duct stones.[2, 34] Perhaps the ulcer type occurs much more frequently than is realized, since its clinical manifestations are few and subtle. J. D. Martin[35] thought that penetration of a duodenal ulcer into the head of the pancreas predisposes to fistula formation because of the destructive action of the pancreatic enzymes. Gastric ulcers become involved in biliary communication with great rarity, the few reported cases involving the common duct rather than the gallbladder.[9, 34, 36]

Intra-abdominal malignant disease is a less common cause of internal biliary fistulas, accounting for less than 4 per cent of cases. The primary lesions most often found are carcinomas of the biliary passages, pancreas, colon and stomach. When carcinoma of the gallbladder is the primary malignant lesion, gallstones are often found also, and it is difficult to evaluate the relative roles played by the 2 factors in the formation of the fistula.[6] Rare malignant tumors, such as hepatoma[37] and reticulum-cell sarcoma,[38] have been reported as a primary cause of SIBF.

One might expect ascending cholangitis to occur frequently as a complication of internal biliary fistulas. Indeed, many authors express great concern with it, because of a single observed case or isolated case reports. Actually, however, it is remarkable how infrequently this occurs,[39] judging by the great majority of reports. The duodenal contents remain remarkably sterile, and regurgitation into the biliary passages is evidently uncommon in the absence of abnormally high pressures within the bowel lumen.[40, 41] The danger of ascending infection is, of course, much greater in fistulas involving the colon. In these cases, furthermore, acute cholecystitis may be protracted, and ulceration within the gallbladder may result in significant hemorrhage.

Intestinal obstruction may result from an internal biliary fistula in 1 of 2 principal ways. The first and most common is gallstone ileus, obstruction of the bowel due to impaction within its lumen by a gallstone which has passed through the fistula. Rarely obstruction may result from kinking of the bowel at the site of the fistula, from the acute inflammatory process excited by the passage of a stone through the communication, or by cicatricial contraction involving the bowel at the site of the fistula.

Previous surgical trauma may be responsible for the development of internal biliary fistulas, damage to the common duct by accidental ligature or foreign bodies being the usual cause. A striking example is the case of Crawford and Stewart.[42] Their patient had had jaundice for 7 years following a cholecystectomy. She died and autopsy revealed a broken hemostat blade in the common hepatic duct, the lower end of which had a fistulous communication with the duodenum.

CLINICAL MANIFESTATIONS

The number of cases of SIBF diagnosed clinically is quite small compared to the total number disclosed by surgical exploration and autopsy. This is due to the rarity of a characteristic clinical picture and to the failure to do appropriate and adequate studies when a suggestive clinical picture is encountered. A review of a large number of case reports suggests a consideration of the clinical picture in 4 categories of manifestations eventuating in the correct diagnosis:

1. In a small minority of cases the diagnosis becomes readily apparent through the occurrence of unmistakable signs. One of these is the vomiting of a large gallstone. Cases in which this occurred have been reported by Coffey and

Willox,[43] Waggoner and LeMone,[32] and others.[2] Similarly, the passage per rectum or impaction in the rectum of a large gallstone is pathognomonic. Rivers and Mason[23] suggest that a stone larger than 0.5 cm. in diameter appearing in the feces indicates the presence of internal biliary fistula since stones of such size are extremely unlikely to have passed through the ampulla of Vater. In the older literature, cases are described in which patients passed gallstones per rectum for years prior to discovery of their SIBF.[27] Recent reports of the recovery of large gallstones from the feces are those of Dean,[7] Hicken and Coray,[14] Waggoner and LeMone,[32] and Ortmayer.[44] Paul[45] described a case in which the patient's history of having removed a large gallstone from the rectum before admission led to the correct diagnosis. Kelley[46] described a case of cholecystocolic fistula diagnosed after the patient presented with a 10.5 cm. stone impacted in the rectum. Another tell-tale finding is the appearance of faceted fecaliths passed with the stools, clearly indicative of cholecystocolic fistula. This finding was observed in a case of my own to be detailed below; I have not seen it described in the literature.

In a number of instances[20, 47] the time of development of the fistula is heralded by the sudden abatement of symptoms and signs in a patient with long-standing biliary tract disease, particularly when the amelioration follows an unusually severe episode. Relief is afforded, albeit temporarily, by the sudden release of the septic contents and calculi from the gallbladder into the bowel. Along with this may go the sudden disappearance of a palpable mass in the right upper abdomen, as described by Rivers and Mason[23] and by Dulin.[48] The sudden discharge of septic material into the bowel may result in symptoms of duodenal irritation or an acute diarrhea, which should further the suspicion, as has been emphasized by Donald[26] and by Bockus.[49] Certainly, such a sequence of events occurring in a middle-aged or elderly woman should urge the clinician to obtain appropriate roentgenologic studies directed toward identification of an internal biliary fistula. Dean[7] described a case in which sudden cessation of acute right upper quadrant pain and disappearance of a right upper quadrant mass indicated the time of fistula formation, only to be followed 48 hours later by gallstone ileus. He and many others have stressed that the remission of manifest illness occasioned by fistula formation is usually very brief, new or recurrent symptoms appearing shortly. Hicken and Coray,[14] while acknowledging that fistula formation may occasionally result in sudden relief, thought that the presence of a fistula usually intensifies existing hepatobiliary disease.

2. The largest group of patients consists of those with a symptom-complex which is highly suggestive but not pathognomonic. A patient with a history indicative of long-standing biliary tract disease should always be considered a candidate for possible internal biliary fistula. A history of symptoms for 8 years preceding the discovery of the fistula was the average reported in a large series of cases by Puestow.[12] Judd and Burden[20] found an average duration of 10 years with a range from 1 month to 40 years in their 153 cases. A number of patients[50, 51] have been described with symptoms ranging beyond 20 years before the climactic illness leading to the discovery of a SIBF. These patients commonly give a history of recurring episodes of biliary colic, or at least right upper quadrant pain, often associated with chills, fever, vomiting, jaundice, and weight loss. The repeated appearance of symptoms and signs of peritoneal irritation with these attacks is further indicative.[23] The symptoms in general are considered to be more severe in patients who have developed a biliary fistula than in those with uncomplicated chronic gallbladder disease.[12] If a patient with a history indicative of repeated attacks of biliary tract disease is seen at the time of an acute episode which is far more severe and prolonged than former ones, a recently formed fistula should be suspected. Similar histories, of course,

are frequent even in the absence of fistula in persons with long neglected biliary tract disease; yet it seems certain that many fistulas are overlooked because they are not sought.

In addition, a number of other symptom-complexes which are considered as highly suggestive of SIBF have been described. Rivers and Mason[23] described the case of a 47-year-old man with a clinical picture of acute gallbladder disease in whom repeated hematemesis occurred. Findings on barium meal were negative, and the gallbladder did not visualize on cholecystograms. At operation a cholecystoduodenal fistula formed by a pericholecystic abscess was found. By way of retrospective diagnosis the authors stated that "the presence of fistula could have been suspected because acute gallbladder disease in the absence of jaundice only rarely will cause bleeding into the gastrointestinal tract, and such bleeding is usually not copious." These authors also considered the appearance of pus and blood in the stool during the course of acute gallbladder disease as highly suggestive of fistula formation. Lovell[52] described a pertinent case in a 55-year-old man in whom an acute illness indicative of biliary tract disease culminated in major gastrointestinal hemorrhage. At laparotomy a cholecystoduodenocolic fistula was found to be the cause. Along this line, Dean[7] has asserted that the appearance of pus and blood in the vomitus may signal the rupture of an acutely infected gallbladder into the duodenum or stomach. The presence of a high concentration of bile in the gastric juice on gastric analysis has been recognized as a significant clue to the existence of cholecystogastric and even cholecystoduodenal fistula. This was described in a case report by Rankin[53] and was a finding leading to appropriate roentgenographic studies in my case of cholecystogastric fistula, described hereinafter. Failure to obtain a gallbladder shadow on cholecystography makes such a finding highly significant, whereas the visualization of a dye-filled gallbladder practically rules out a fistula. A chronic diarrhea in a patient with biliary tract symptoms or with a history of prior biliary tract disease should arouse suspicion of biliary fistula. Donald et al[26] have described a patient with chronic diarrhea and episodes of acute gallbladder disease occurring over a period of 13 years prior to the diagnosis of a cholecystoduodenal fistula. Many cases of SIBF are found among persons who have had prior cholecystostomy. A fistula should be suspected in a patient having persisting illness after this operation.

3. Next, one may group together a variety of instances in which the clinical history provides no direct clues to suggest the presence of SIBF, the diagnosis being disclosed incidentally during roentgenologic studies or surgical exploration. Foremost in this group are those patients who are labeled only as having gallbladder disease, there being no prolonged symptoms or extraordinary event to create suspicion of a fistula. The clinical history may simply be that of prolonged dyspepsia, recognizable as being of biliary tract origion only after abnormal cholecystographic findings are obtained. The history of an episode suggestive of cholecystitis or biliary colic in the remote past may be elicited only after repeated questioning. One might speculate that there are cases of SIBF to be found among a host of chronically ill persons who have long borne a diagnosis of functional gastrointestinal disorder. Also to be remembered in this diagnostic category are patients whose illness seems fully explained by a recognized disease, such as peptic ulcer or carcinoma, the presence of an unsuspected SIBF being a surprising incidental lesion discovered on routine roentgenologic studies, operation or autopsy. Most choledochoduodenal fistulas fall into this category, since they occur in the course of chronic duodenal ulcer disease without the appearance of additional symptoms to signal their formation. It is well to think of this type of fistula when ulcer disease has been present for years, when the ulcer is extensive, or when symptoms point toward a posterior penetration. Finally, the patient with intestinal obstruction due to un-

known cause may prove to have gallstone ileus secondary to SIBF. Approximately 2 per cent of all cases of intestinal obstruction have been reported as due to gallstones.[54]

4. There remains a small group of patients with SIBF who are asymptomatic and unable to relate a past illness suggestive of biliary tract disease. A considerable number of reports on cases of gallstone ileus indicate the lack of a history of prior biliary tract symptoms. This may be partly explained by the fact that many of these patients are critically ill when seen and are unable to give satisfactory histories. It is very exceptional to encounter a SIBF in the course of routine studies on a patient completely lacking a history of abdominal symptoms of some type or another.

It seems worthwhile to recapitulate the "symptom diagnosis" of SIBF with a tabulation of outstanding guideposts:

a. A long-standing history of biliary tract disease is the clue par excellence.

b. An obscure upper abdominal symptom-complex may represent one of the vagaries of SIBF.

c. Careful examination of all stools and vomitus may lead to the diagnosis in the puzzling case of gastrointestinal disease.

d. Gastrointestinal bleeding or a chronic diarrhea in a patient with known biliary tract disease may be explained by SIBF.

e. The patient with an etiologically obscure intestinal obstruction has one chance in 50 of having a SIBF.

f. Extensive or chronic duodenal ulcer may become complicated by the development of a SIBF.

ROENTGENOLOGIC FINDINGS

The first roentgenologically diagnosed case to be reported was that of Carman[55] in 1917, a cholecystoduodenal fistula demonstrated by barium visualization of the biliary tract and proved by operation to be due to a carcinoma of the gallbladder. Prior to that time, nearly all cases were recognized only at operation or autopsy, save an exceptional few presenting pathognomonic clinical signs. Although an increasing rate of roentgenologically diagnosed cases has been evident, the majority of cases still escape preoperative recognition. For example, only 11 out of 84 cases seen at the Mayo Clinic[16] during 1945–1950 (inclusive) were diagnosed by roentgenologic study.

Roentgenologic study offers the only precise method of clinical diagnosis of SIBF. Accurate delineation of the anatomic details is highly desirable prior to surgical intervention and is often easily attainable during preoperative management. A knowledge of the roentgenologic manifestations and the means to elicit them will contribute much to the handling of patients.

The roentgenologic criteria for the diagnosis of SIBF are outlined here:

A. Diagnostic signs
  1. Gas in the biliary passages
  2. Delineation of the fistula of biliary tract by contrast medium
    a. Oral barium sulfate in upper gastrointestinal involvement
    b. Barium sulfate enema or oral barium sulfate in colonic involvement
    c. Bronchography in bronchobiliary fistulas
  3. Presence of solitary faceted stone in gallbladder
  4. Disappearance of stones previously demonstrated in gallbladder
  5. Demonstration of laminated or faceted stone in gastrointestinal tract or other extrabiliary situation
B. Presumptive or auxiliary signs
  1. Failure of gallbladder visualization on cholecystography
  2. Mucous membrane changes in duodenum, stomach or colon at site of fistula.

Gas in the biliary tract. The presence of gas shadows in the biliary tract is easily recognizable on roentgenograms of the abdomen and is highly suggestive of the presence of internal biliary fistula involving the gastrointestinal tract. Films centered over the right upper quadrant demonstrate the gas pattern to the best advantage. The chances of eliciting this sign are enhanced by multiple films taken in various body positions (upright, prone, supine and lateral recumbent). The relationship of gas shadows to the duodenal loop is of prime importance. Any gas shadow above the level of the duodenal bulb and lesser curvature of the stomach should raise a question in the viewer's mind as to the possible biliary tract location of the gas. When this finding is encountered, one is obliged to differentiate between biliary and gastrointestinal location of the gas by additional filming procedures and barium studies.

Gas patterns in the biliary passages vary from case to case. Indeed, they may vary in a single individual from one examination to another; gas may be absent on one examination and visible on another. Often there is a gas shadow, clearly in conformity with the size, shape, and position of the gallbladder. This indicates, as borne out in most cases, a communication between the gallbladder itself and some portion of the gastrointestinal tract. Frequently a major portion of the entire biliary tree is filled with gas and an arborization far into the liver is seen. Gas in the common duct may be difficult to distinguish from gas in the gastrointestinal tract. In the common duct the gas is tubular in shape, is in vertical position, and remains relatively fixed in position with change of the body position.[14] The most striking air patterns are said to occur[32] in cholecystocolic fistulas, but they have been observed in all other forms of cholecystoenteric fistulas, including those surgically created.[56] In choledochoduodenal fistulas, gas distribution is usually more limited in extent.[57, 58, 59]

In spite of the striking appearance of these gas shadows, it is not rare for them to be overlooked when a biliary fistula has not been considered in the diagnosis. Glaring examples of oversight are depicted in cases reported by Greenwood and Samuel,[57] Coffey and Willox,[43] Waggoner and LeMone,[32] and Smith et al.[60] In these cases retrospective examination of previous films revealed the tell-tale gas patterns only after the diagnosis had been discovered by laparotomy or barium studies.

The value of scout films in the study of suspected biliary tract disease cannot be emphasized too strongly. A plea for their routine use was made by Stevenson,[61] pointing out the ease with which internal biliary fistula can be diagnosed through the finding of biliary gas patterns. In Waggoner and LeMone's report[32] which included 13 definite cases of SIBF 8 were found to show gas shadows in the biliary tract on roentgenograms.

Acute cholecystitis due to gas-producing organisms presents a gas shadow of the gallbladder on the roentgenogram. Although this condition is exceedingly rare[9] it must be distinguished from SIBF producing similar gas shadows. McCorkle and Fong[62] lucidly described the findings in proved cases of both conditions and clarified the differentiation, which is summarized in table 4.

Theoretically, gas may gain access to the

TABLE 4

Findings Differentiating Acute Cholecystitis and SIBF

Acute gaseous cholecystitis	*Internal biliary fistula*
1. Gallbladder large, distended by gas	1. Gallbladder normal in size or small
2. Gas not present in bile ducts	2. Gas in bile ducts, usually
3. Fluid level in gallbladder in erect position	3. No fluid level
4. Circumferential ring of gas outlines gallbladder contents	4. No ring of gas
5. Serial films show disintegration of gas shadows and spread into adjacent tissue	5. Serial films may show changing pattern but no spread
6. Clostridium in cultures of duodenal fluid	6. Not so likely to be found

biliary tract by one other means in the absence of a biliary fistula. It would seem possible for duodenal contents to enter the common duct by retrograde flow through a patulous ampullary orifice, the sphincter of Oddi having been rendered incompetent by duodenal ulcer, carcinoma of the ampulla, or calculi in the ampulla. A number of case reports[21, 32, 63, 64, 65] have appeared in the literature, attributing the presence of gas or barium in the biliary passages to "reflux through an incompetent sphincter of Oddi." Most of these reports,[56, 66] however, lack convincing evidence that an internal biliary fistula was ruled out by adequate surgical exploration or autopsy. In the great majority of cases in which surgical exploration included inspection of the opened duodenum, the orifice of a choledochoduodenal fistula was identified. An exception is provided in the case reported by Faust and Mudgett.[67] In their patient the reflux of air and barium into the biliary system was attributed to traction on the duodenum by adhesions between it and the gallbladder. A cholecystoduodenal fistula was ruled out on dividing these adhesions and a choledochoduodenal fistula was ruled out by opening and exploring the duodenum. Likewise, in 1 case of Waggoner and LeMone[32] barium visualization of the lower common duct in a patient with previous cholecystectomy was accepted as due to reflux through a patulous ampulla of Vater seen on duodenotomy.

Sullivan and Hamman[9] aptly pointed out that both emphysematous cholecystitis and common duct reflux are so rare that the visualization of air in the biliary passages should be considered as due to SIBF unless incontestably proved otherwise.

Delineation of the biliary tract by contrast medium. The definitive diagnosis and localization of internal biliary fistulas is dependent upon barium sulfate studies of the gastrointestinal tract. Recognition of the presence of these fistulas has been acquired far more frequently through barium visualization than through the finding of gas shadows in the biliary passages.[26] Yet, in some instances barium visualization cannot be accomplished even though gas has spontaneously entered the biliary tree.[32, 45, 58, 68] When barium sulfate does enter the biliary passages, it is common to find gas along with it.[21, 32, 44, 59, 67, 69–73] If proper roentgenologic technic is employed, a very high percentage of fistulas can be demonstrated. Out of 13 cases in which barium studies were done in Waggoner and LeMone's series,[32] there was conspicuous evidence of the fistulas in 12. The extent of biliary tract filling varies widely, depending on the size of the fistulous aperture, the diameter and shape of the tract, degree of dilatation of the biliary tree, and relative pressures in the gastrointestinal tract and biliary system.[44] Failure of barium filling may be due to the impaction of a stone in the fistulous opening.[32] In cholecystic fistulas the presence of cystic duct obstruction may permit only the gallbladder to fill, preventing visualization of the rest of the biliary tree.

When a gallstone has recently passed through a fistula into the bowel, visualization of the biliary tree should be accomplished easily, especially if gallstone ileus occurs. This was emphasized by Rigler et al,[72] who pointed out that a stone large enough to cause intestinal obstruction leaves a path adequate to permit reflux of intestinal contents into the biliary tree. In 14 cases of gallstone ileus adequately studied roentgenologically in their series, all but 1 showed gas or barium in the biliary tract. The increased pressure in the intestinal tract in consequence of distal obstruction would seem to be a significant factor.

Thorough fluoroscopic examination deserves emphasis. Barium filling of the biliary system is unlikely to be observed in the vertical fluoroscopy. In the recumbent position the patient should be examined in all degrees of obliquity, both prone and supine. Sudden and extensive filling of the biliary tree may appear in 1 certain position, while failing to occur in all others.[74] Tilting to head-low position may be the productive maneuver in some instances. Borman and Rigler[3] thought that the right lateral recumbent position was best for demonstrating fistulas involving the duodenum. Meticulous fluoroscopy may bring out anatomic detail of the fistulous communication and biliary tract, which cannot be detected on the roentgen films.[14] In cholecystogastric fistula one may observe barium-filling of the gallbladder before the medium has entered the duodenum. In cholecystoduodenal fistula the gallbladder fills only after barium has entered the duodenum. The medium may be traced in its passage through the cystic duct and observed to fill the common duct and hepatic ducts subsequently. In choledochoenteric fistula one observes filling of the common duct first, followed by filling of the cystic duct and gallbladder. In some instances, the pathologic process may have so altered anatomic relationship that accurate delineation of the communication is not possible or misinterpretation results. In cholecystenteric fistula with common duct obstruction, barium filling of the dilated common duct may clearly illustrate obstruction at the ampulla. Some authors[14, 75] have indicated that on fluoroscopy a choledochoduodenal fistula may be distinguished from retrograde flow of barium through a patent ampulla of Vater. They state that in reflux into the intact common duct the barium readily escapes back into the duodenum, whereas in choledochoduodenal fistula the barium tends to remain in the biliary ducts.

It must be remembered that an internal biliary fistula may fail to admit barium unless pressure in the gastrointestinal tract is raised. Thus, compression of the barium-filled duodenum for a longer time than is usually employed may be necessary to produce filling of the biliary passages.[20, 40, 41] Cholecystocolic fistulas may admit barium only on varied technics of fluoroscopic manipulation[76] with administration of barium enema. Partial filling of biliary structures through a biliocolic fistula may be obscured by the barium distended colon.[3] Fistulas into the colon are occasionally brought out only after evacuation of the enema or after air injection for double contrast visualization.[66]

To supplement fluoroscopic data roentgenographic films should be made, utilizing compression when indicated and various body positions, emphasizing the positions found to be most revealing in the fluoroscopic study. The routine use of multiple exposures in various body positions may clarify anatomic details not evident during fluoroscopy. After barium meal administration follow-up films at intervals may prove fruitful. Even when the initial procedures have yielded no evidence of fistula, follow-up films may establish the diagnosis clearly.[61] A film at 24 hours after a barium meal revealed evidence of a cholecystocolic fistula in a case reported by Waggoner and LeMone.[32] In a case reported by Rankin[53] the oral barium study was negative, but a 24-hour film showed an extra-intestinal barium shadow which was found to be due to a cholecystogastric fistula. Borman and Rigler[3] have urged routine filming at 30 minutes after ingestion of barium, and other reports have illustrated the value of films at longer intervals.[44, 77]

One may fall short of a complete diagnosis if a complete gastrointestinal examination is not done. Complex fistulas involving more than 1 portion of the enteric canal do occur, and an incomplete knowledge of these may result if the study stops after the barium meal or barium enema alone. The value of such completeness is well demonstrated in the case of Marquardt et al,[30] in which a complex cholecystoduodenocolic fistula was beautifully depicted by a barium meal and a barium enema.

The demonstration of obstructing stones in the bowel occasionally has been an incidental finding[72] in oral barium studies in cases of SIBF. In Minty's case[78] the barium meal outlined a large nonopaque gallstone filling the duodenal bulb. A similar finding is described by Waggoner and LeMone.[32] Likewise, one may observe nonopaque calculi in the gallbladder or common duct clearly outlined by barium.[12, 64, 68, 77, 79]

Presence of solitary faceted stone in gallbladder. The roentgenographic finding of a solitary faceted stone in the gallbladder indicates that an accompanying stone has been extruded from the gallbladder. Such a picture was the sole roentgenographic basis for the diagnosis of rupture of the gallbladder in a case of Powers,[58] which presented a cholecystoduodenal fistula at laparotomy. The mate stone was found in the ileum. In like manner, a roentgenogram of the abdomen in a case of Rigler et al[72] revealed 1 faceted stone in the gallbladder with gas above it. The mate stone was removed from the ileum at laparotomy. A solitary faceted stone provides a nearly foolproof diagnostic sign, but admittedly the same picture could be produced by 2 opposing stones of different composition, 1 calcific and the other radiolucent. This seems a highly unlikely circumstance.

Disappearance of stones previously demonstrated in gallbladder. It is true that stones may disappear from the gallbladder via the intact biliary passages, to be eliminated by the bowel. A stone larger than 0.5 cm. in diameter, however, is unlikely to complete the journey through the ampulla of Vater. A striking episode of biliary colic attended by jaundice is almost certain to accompany the disappearance of the stones via the normal route. A good diagnostic point is that a history of such an episode is often lacking when SIBF is the route of exit. The disappearance of stones has often been the principal observation identifying a case of intestinal obstruction as gallstone ileus.[60, 72, 80, 81]

Demonstration of laminated or faceted stones not in biliary tract. The roentgenographic demonstration of a biliary calculus in the intestinal tract or elsewhere outside the biliary passages on scout films provides strong evidence of an internal biliary fistula. This applies to large calculi, which usually are laminated or faceted, since smaller ones are as likely to have passed through the intact biliary passages. Moreover, these smaller stones are not likely to be detected on abdominal films. It is usually in a case of gallstone ileus that the observation of an extrabiliary stone is made.[28, 43, 54, 60, 72]

Absence of gallbladder visualization on cholecystography. In bilio-enteric fistulas secondary to cholecystitis and cholelithiasis there will be no dye shadow in the gallbladder on cholecystography. This is obvious and axiomatic. Yet, an amazing exception is provided in McQueeney's report[31] of a cholecystoduodenal fistula, known to have been present 19 years previously, in which the fistula was delineated by cholecystography as well as by barium meal. In choledochoduodenal fistulas due to peptic ulcer it is not unusual to obtain cholecystographic visualization of the gallbladder. Barium studies may fail to distinguish between cholecystoduodenal and choledochoduodenal fistula. In such an instance the cholecystogram may be helpful in the differentiation.

Mucosal changes in the duodenum, stomach or colon at site of fistula. With an auxiliary sign like nonvisualization of the gallbladder, mucous membrane changes give no hint of SIBF in the absence of other signs. The fluoroscopic observation of the bowel wall abnormality, however, will suggest an infiltrative or ulcerative lesion and will lead the roentgenologist to study the area carefully. With adequate study conclusive signs of SIBF should be elicited if one is present. The usual mucosal changes accompanying SIBF are loss of elasticity and irregularity of mucosal folds.[3]

(*To be continued*)

BIBLIOGRAPHY

1. Roth, Schroeder, and Schloth, cited by Donald et al.[26]
2. Courvoisier, L. G.: Casuistische-statistische Beiträge zur Pathologie und Chirurgie der Gallenwege. Leipzig: F. C. W. Vogel, 1890.
3. Borman, C. N., and Rigler, L. G.: Surgery, 1937, **1**, 349.
4. Davison, M., and Aries, L. J.: Ann. Surg., 1938, **107**, 229.
5. Puig-Sureda, J.: Fistulas biliares internas espontaneas, read before Quatorzieme Congres de la Societe internationale de Chirurgie, in Paris, September 23–29, 1951; Brussels: Imprimerie Medicale et Scientifique (S.A.), 1952, pp. 601--28; cited by Epperson et al.[16]

6. Eliason, E. L., and Stevens, L. W.: Am. J. Surg., 1941, **51,** 387.
7. Dean, G. O.: Surgery, 1939, **5,** 857.
8. Tracey, M. L., and McKell, D. M., Jr.: S. Clin. North America, 1943, **23,** 717.
9. Sullivan, J. M., and Hamman, L.: A.M.A. Arch. Surg., 1951, **63,** 635.
10. Kehr, H.: Chirurgie der Gallenwege. Stuttgart: F. Enke, 1913.
11. Bernhard, F.: Deutsche Ztschr. f. Chir., 1934, **242,** 493.
12. Puestow, C. B.: Ann. Surg., 1942, **115,** 1043.
13. Cowley, L. L., and Harkins, H. N.: Surg. Gynec. & Obst., 1943, **77,** 661.
14. Hicken, N. F., and Coray, Q. B.: Ibid., 1946, **82,** 723.
15. Mirizzi, P. L.: Fistule biliaires internes spontanees au cours de la lithiase biliaire, read before Quatorzieme Congres de la Societe internationale de Chirurgie, in Paris, September 23–29, 1951; Brussels: Imprimerie Medicale et Scientifique (S.A.), 1952, pp. 531–58; cited by Epperson et al.[16]
16. Epperson, D. P., and Walters, W.: Proc. Staff Meet. Mayo Clin., 1953, **28,** 353.
17. Vick, R. M.: Brit. M. J., 1932, **2,** 546.
18. Shell, J. N., and Brown, L.: M. Times, 1951, **79,** 568.
19. Hand, B. H., and Gilmore, W. E.: Am. J. Surg., 1943, **59,** 72.
20. Judd, E. S., and Burden, V. G.: Ann. Surg., 1925, **81,** 305.
21. Scott, M. G., Pygott, F., and Murphy, L.: Brit. J. Radiol., 1954, **27,** 253.
22. Johnstone, G. A., and Ostendorph, J. E.: Arch. Surg., 1946, **53,** 1.
23. Rivers, A. B., and Mason, J. B.: M. Clin. North America, 1932, **15,** 1571.
24. Turner, G. G.: Brit. J. Surg., 1932, **20,** 26.
25. Twiss, J. R., and Oppenheim, E.: Practical Management of Disorders of the Liver, Pancreas, and Biliary Tract. Philadelphia: Lea, 1955.
26. Donald, D. C., Meadows, B. T., and Silbermann, S. J.: Arch. Surg., 1946, **53,** 652.
27. Robson, A. W. M.: Brit. M. J., 1909, **1,** 1050.
28. Hinchey, P. R.: Arch. Surg., 1943, **46,** 9.
29. Jankelson, I. R., and O'Conner, J. J.: Am. J. Digest. Dis., 1952, **19,** 66.
30. Marquardt, G. H., Cummins, G. M., Jr., and Barth, E. E.: Gastroenterology, 1947, **9,** 87.
31. McQueeney, A. M.: Ann. Surg., 1939, **110,** 50.
32. Waggoner, C. M., and LeMone, D. V.: Radiology, 1949, **53,** 31.
33. Walker, G. L., and Large, A. M.: Ann. Surg., 1954, **139,** 510.
34. Naunyn, B.: A Treatise on Cholelithiasis, trans. by A. E. Garrod. London: The New Sydenham Society, 1896.
35. Martin, J. D., Jr.: Am. Surgeon, 1952, **18,** 908.
36. Garland, L. H., and Brown, J. M.: Radiology, 1942, **38,** 154.
37. Noskin, E. A., Strauss, A. A., and Strauss, S. F.: Ann. Surg., 1949, **130,** 270.
38. Yater, W. M., and Moser, J. M., Jr.: M. Ann. District of Columbia, 1945, **14,** 114.
39. Bustos, F. M.: Bol. y trab. Acad. argent. cir., 1951, **35,** 511.
40. Altman, W. S., and Field, E. A.: New England J. Med., 1937, **216,** 199.
41. Ginzburg, L., and Benjamin, E. W.: Ann. Surg., 1930, **91,** 233.
42. Crawford, B. L., and Stewart, H. L.: Am. J. Clin. Path., 1939, **9,** 353.
43. Coffey, R. J., and Willox, G. D.: Am. Surgeon, 1952, **18,** 286.
44. Ortmayer, M., Stetler, P. M., and Giryotas, E.: J.A.M.A., 1940, **114,** 1055.
45. Paul, L. W. (Madison, Wis.): Radiology, 1934, **23,** 363.
46. Kelley, R. W.: Missouri Med., 1954, **51,** 446.
47. Jenkins, H. B.: J.A.M.A., 1943, **123,** 830.
48. Dulin, J. W., and Peterson, F. R.: Arch. Surg., 1939, **38,** 351.
49. Bockus, H. L., and others: Gastroenterology. Philadelphia: Saunders, 1946, **3,** 698–709.
50. Kantor, J. L., and Jaffin, A. E.: Radiology, 1928, **10,** 10.
51. Lowman, R. M., and Wissing, E. G.: J.A.M.A., 1939, **112,** 2247.
52. Lovell, D. L.: South. Surgeon, 1947, **13,** 152.
53. Rankin, J. O.: Am. J. Surg., 1932, **15,** 109.
54. Manfredi, D. H.: U. S. Armed Forces M. J., 1951, **2,** 243.
55. Carman, R. D: The Roentgen Diagnosis of Diseases of the Alimentary Canal. Philadelphia: Saunders, 1917, pp. 368–69.
56. Sickels, T. N., and Hudson, C. L.: Am. J. Roentgenol., 1934, **31,** 31.
57. Greenwood, F., and Samuel, E.: Brit. J. Radiol., 1949, **22,** 634.
58. Powers, R. A.: Radiology, 1936, **27,** 474.
59. Weinberger, J., and Rosenthal, A.: Am. J. Roentgenol., 1945, **53,** 470.
60. Smith, D. W., Greenfield, M. M., and Gould, M. G.: J. Florida M. A., 1950, **37,** 347.
61. Stevenson, C. A.: J.A.M.A., 1953, **151,** 264.
62. McCorkle, H., and Fong, E. E.: Surgery, 1942, **11,** 851.
63. Beall, F. C., and Jagoda, S.: J.A.M.A., 1921, **76,** 1483.
64. Venables, J. F., and Briggs, P. J.: Guy's Hosp. Rep., 1929, **79,** 123.
65. Jenkinson, E. L., and Brouse, I. E.: Am. J. Surg., 1931, **12,** 499.
66. Stevenson, C. A., and Sherwood, M. W.: Radiology, 1940, **35,** 616.
67. Faust, D. B., and Mudgett, C. S.: Ann. Int. Med., 1943, **19,** 356.
68. Brandel, E.: Acta radiol., 1944, **25,** 333.
69. Clark, S. B.: New York J. Med., 1952, **52,** 443.
70. Delano, P. J.: Am. J. Roentgenol., 1942, **47,** 298.
71. Podlasky, H. B.: Radiology, 1935, **24,** 345.
72. Rigler, L. G., Borman, C. N., and Noble, J. F.: J.A.M.A., 1941, **117,** 1753.
73. Taylor, W. B.: Canad. M. A. J., 1942, **47,** 332.

(*Continued on page 674*)

STUDIES IN SICKLE-CELL ANEMIA

XIII. The Management of Pneumonia in Children with Sickle-cell Anemia

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SICKLE-CELL anemia (SCA) has been traditionally associated with increased susceptibility to infections. Prior to the era of modern antibiotic therapy, pneumonia and other respiratory infections were the chief causes of death in the child with SCA. Pneumonia in the child with SCA still represents a fairly serious disease because the infection is complicated by debilitating factors inherent in the SCA patient, such as anemia, poor nutrition, and circulatory stasis. The purpose of this paper is to emphasize the need for general supportive measures as well as specific antibiotic therapy in the management of pneumonia in children with SCA. Three illustrative cases are cited.

Report of Cases

Case 1. M. G., a 6-year-old Negro male, whose SCA was first diagnosed at the age of 23 months, was admitted to the pediatric ward with a history of fever, anorexia, cough, vomiting and abdominal pain of 24 hours' duration. He had previously experienced several hospital admissions for SCA crises and had received many transfusions.

Physical examination revealed an asthenic child whose weight was 46 pounds, 4 ounces. He was in moderate respiratory distress and appeared quite apprehensive and anxious. The temperature was 103.6°F, and respirations were 48 per minute. The sclerae were icteric. The tonsils and oral pharynx were hyperemic. There was flaring of the alae nasi, expiratory grunting, and inspiratory indrawing of the suprasternal, subcostal and intercostal spaces. There were limited excursions of the right side of the chest. Examination revealed the physical signs of consolidation of the lower half of the right lung field with scattered areas of pneumonitis on the left. The roentgenogram of the chest revealed a homogeneous density extending over three-fourths of the right lung field and scattered areas of increased density over the left lung (figure 1-A).

Laboratory examination on admission revealed 2,370,000 red blood cells, hematocrit of 23, hemoglobin of 7.9 Gm., 34,200 white blood cells, CO_2 of 31 mEq./liter, icterus index of 11.4, and cephalin flocculation of 3+ in 24 hours and 3+ in 48 hours. The specific gravity of the urine was 1.007. A blood culture failed to grow organisms, but the nose and throat cultures disclosed hemolytic *Staphylococcus aureus*, mannitol-negative.

Therapy on admission consisted of oxygen inhalation, intramuscular penicillin, intravenous fluids, anodynes and antipyretic measures.

During the first 3 days of hospitalization the patient continued to vomit after taking a liquid diet. Respiratory distress persisted with frequent severe episodes of coughing. The temperature remained above 102°F. On the third hospital day, the chest X-ray film revealed marked extension of the pneumonic process to involve the entire right lung field with a suggestion of the presence of pleural fluid (figure 1-B). Fifteen c.c. of thick, yellow, cloudy fluid was obtained upon thoracentesis of the right chest.

Tetracycline was substituted for penicillin therapy. On the fourth hospital day examination revealed a fall in the values for the red blood cells, hematocrit, hemoglobin and carbon dioxide content of the serum (1,970,000 red blood cells, hematocrit 21, hemoglobin 5.4 Gm., CO_2 15 mEq./liter). Transfusions of whole blood were given on the fourth and fifth hospital days. This was followed by daily transfusions of packed red blood cells.

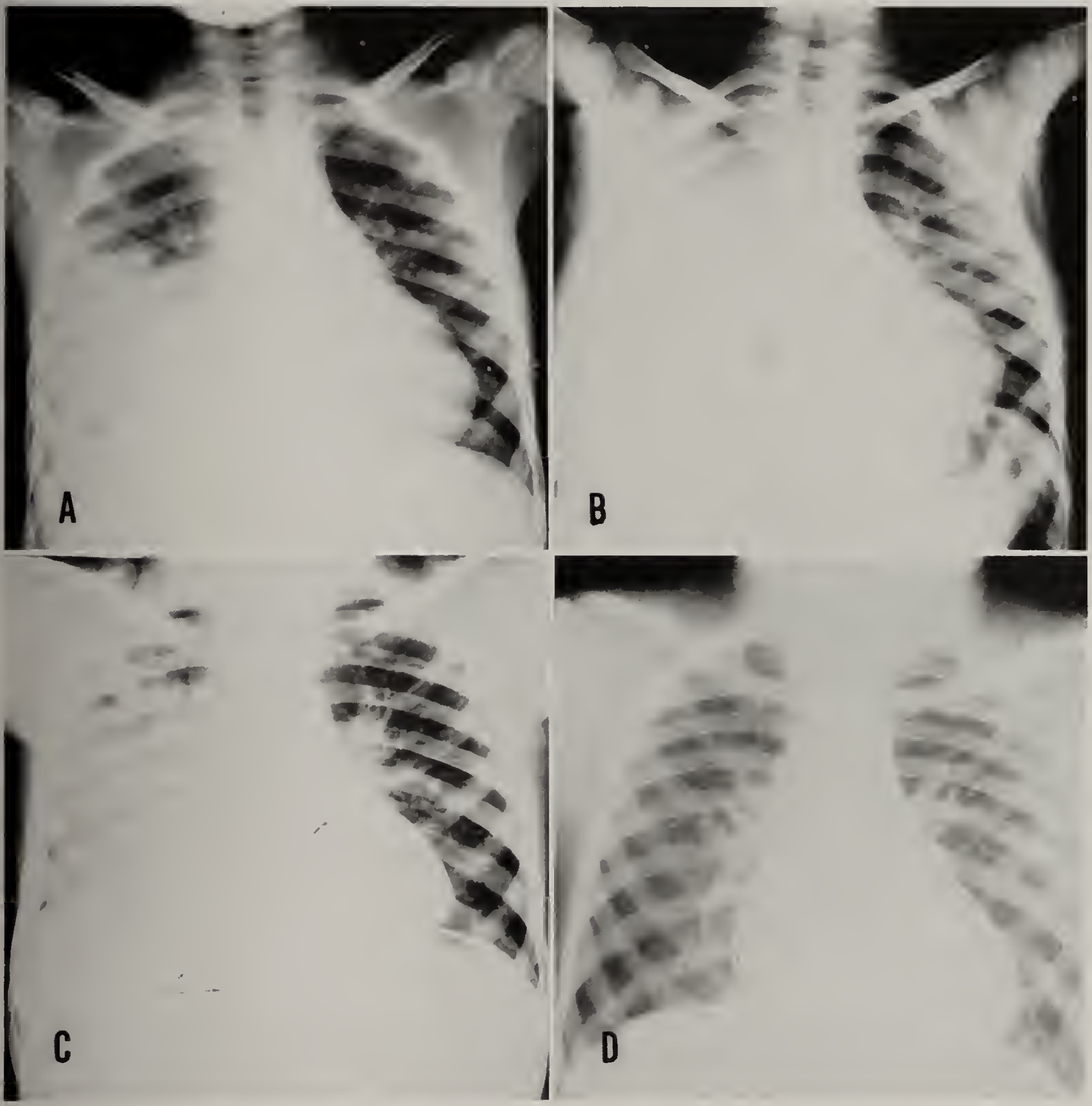

FIG. 1. Case 1. (A) Homogeneous density of right lung field on day of admission. (B) Marked extension of pneumonic process to involve entire right lung field on third hospital day. (C) Mottled type of infiltration of lower two-thirds of right lung field on ninth hospital day. (D) Prominence of bronchovascular markings at hilar areas and clearing of the peripheral lung fields 2 weeks after hospitalization.

Another X-ray film of the chest on the ninth hospital day revealed a mottled type of infiltration of the right lung field (figure 1-C).

Symptomatically the patient was improved on the eighth day, and the temperature returned to normal on the twelfth hospital day. Antibiotic therapy was discontinued on the seventeenth day, and he was discharged after 20 days of hospitalization in good condition.

On return visit to the outpatient clinic 2 weeks later the roentgenogram of the chest showed clearing of the peripheral lung fields, but the bronchovascular shadows at the hilar areas were prominent (figure 1-D).

Case 2. G. W., a 3-year-old Negro male, who was a known SCA patient, was hospitalized on March 18, 1956 because of chickenpox and pneumonia. On the night before admission there were high fever, hyperpnea, and an occasional cough. On the day of entry the patient complained of abdominal pain.

This patient had been followed in another hospital because of his SCA, the last visit having been 3 months prior to this admission. His sister also had SCA.

Physical examination revealed a well developed but poorly nourished child in respiratory distress with a temperature of 105°F. He weighed 26 pounds, 4 ounces. There were dullness over the base of the right lung and bilateral course rales. The respiratory rate was 40 per minute, and the pulse was 160 per minute. The heart was enlarged. The abdomen was slightly distended, and the liver was palpable 2 cm. below the right costal margin. The spleen and kidneys were not palpable. There was a vesiculopustular eruption on the scalp, chest and extremities.

Admission laboratory data showed hemoglobin 8 Gm., hematocrit 21, and white blood cells 23,250. On urinalysis there was a low specific gravity of 1.012 and a trace of acetone. The nasopharyngeal culture showed hemolytic *Staphylococcus aureus* sensitive to chloromycetin, streptomycin, erythromycin and magmamycin.

The X-ray film on admission revealed an area of haziness in the right chest at the level of the third and fourth interspaces anteriorly. The cardiac silhouette was widened (figure 2-A).

The initial therapy consisted of the use of penicillin, oxygen and aspirin. On the second day the temperature was 106°F, the pulse rate 164, and the respiratory rate 60 per minute. At this time the liver was palpable 6 cm. below the costal margin, and the hemoglobin had fallen to 6.8 Gm. and the hematocrit to 20. The patient was digitalized, and, following the sensitivity report on the organism, penicillin was replaced by chloramphenicol. Intravenous fluids and a transfusion of 150 c.c. of packed red blood cells were administered. On the third day the fever had begun to subside by lysis and the patient was symptomatically improved. An X-ray film of the chest on March 22, 1956 revealed an increase in the amount of infiltration in both lungs with an area of consolidation in the lower portion of the right upper lobe (figure 2-B). In view of the signs of extensive pneumonia another transfusion was given.

On the eighth hospital day, the patient was afebrile and signs of consolidation were disappearing, but there was suppression of breath sounds in the right lung. The X-ray film showed partial resolution of the consolidation in the right lung (figure 2-C).

On the tenth hospital day the lungs were clear to auscultation and the patient was afebrile and well hydrated. An X-ray film on the thirteenth hospital day showed that the lesion previously reported had undergone further resolution but that there was still minimal involvement in the lower half of the upper right lobe (figure 2-D). The patient was discharged after being afebrile for 4 days.

Case 3. P. W., a 7-year-old Negro female, diagnosed as having SCA at the age of 9 months, was admitted to another hospital on January 19, 1956 because of a cough which had developed 6 days previously. Four days later the cough became more severe and was associated with fever. The patient complained of periumbilical, back and chest pain at the time of admission.

During the past 6 years she had been hospitalized 8 times for crises due to SCA. These episodes were usually associated with headaches, shortness of breath, and abdominal and back pains. The sclerae had been icteric for the past 3 years. Her brother was described in case 2.

Physical examination revealed an asthenic child who appeared chronically ill. The temperature was 104°F, the pulse rate 160, the respiratory rate 48, and the weight 42½ pounds. There were generalized lymphadenopathy, icteric sclerae, and marked tonsillar enlargement. Examination of the lung fields revealed physical findings consistent with pneumonia of the left lower lung field. The heart was clinically enlarged to the left, but there were no murmurs.

Laboratory examination on admission revealed the hemoglobin to be 6.6 Gm. with 50 per cent sickling. Chest X-ray on admission showed a pneumonic process involving the lower two-thirds of the left lung field.

Initial therapy consisted of oxygen inhalation, parenteral penicillin, and a triple sulfonamide and aspirin orally. Within 8 hours the periumbilical pain was relieved, but on the next day she experienced a sharp pain in the left side of the chest, and the urine appeared dark amber and concentrated. Later the patient became apprehensive and dyspneic. The pulse rate was 134, hemoglobin 6 Gm., and the hematocrit 19. A transfusion of 200 c.c. of whole blood was given. Within 48 hours the patient was markedly improved clinically and the fever had begun to subside.

Five days after admission the patient was further clinically improved, but there were still fever and clinical signs of pneumonia at the base of the left lung. A transfusion of 200 c.c. of packed red blood cells was given. The patient continued to improve and on the seventh hospital day was up and about the ward. Two weeks after hospitalization the pneumonia had resolved both by physical and X-ray examinations.

This patient was admitted to this hospital on December 18, 1957 (approximately 11 months after the previous hospitalization) complaining of fever, headache and pain in the abdomen and right side of the chest. The illness began with a cold a week previously. On admission the temperature was 104°F, the pulse 116, and

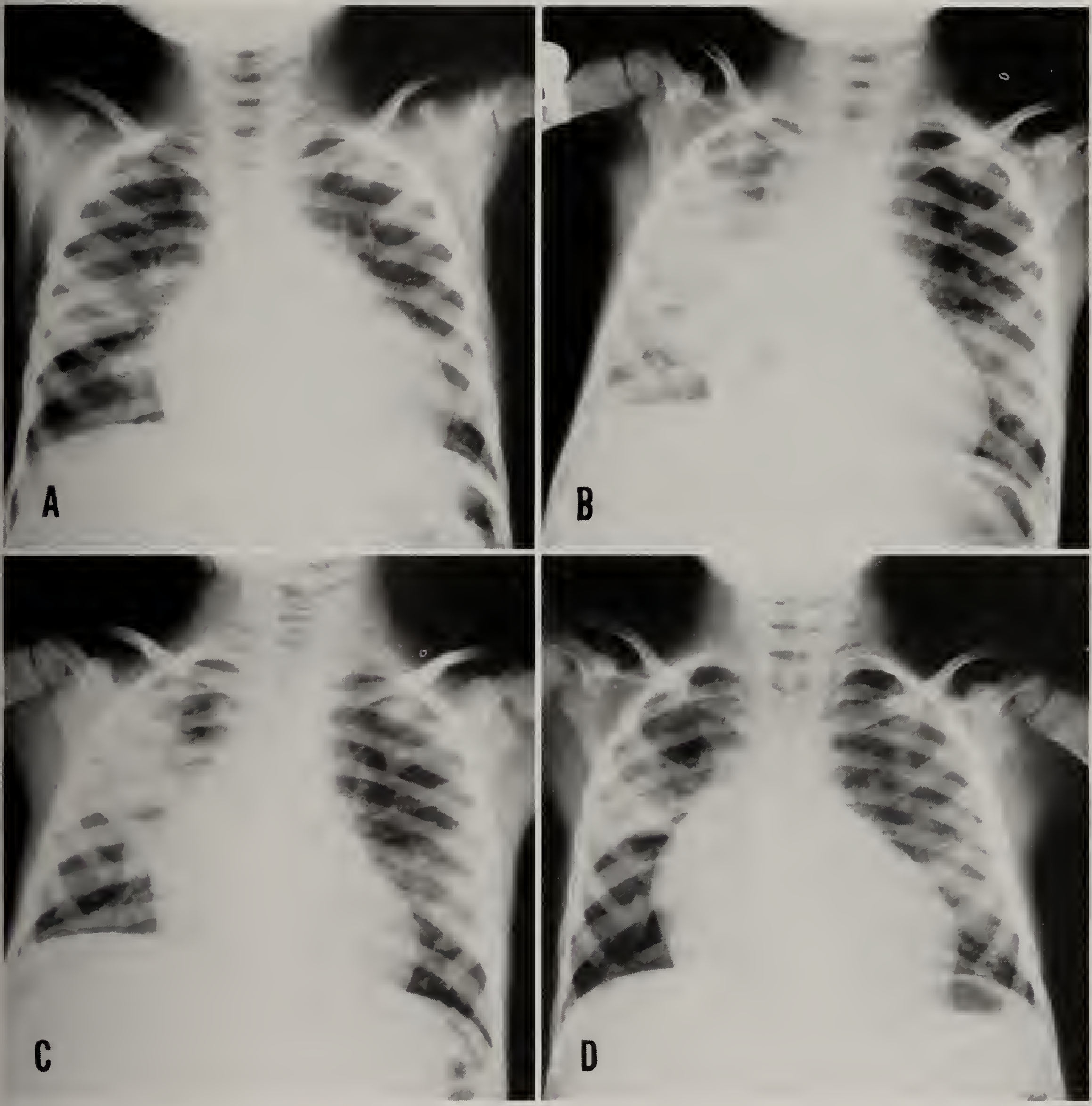

Fig. 2. Case 2. (A) Area of haziness in the right lung at the level of the third and fourth interspaces anteriorly (March 18, 1956). (B) Increase in the amount of infiltration in both lungs with an area of consolidation in lower portion of right upper lobe (March 22, 1956). (C) Partial resolution of infiltration in right lung (March 26, 1956). (D) Further resolution of pneumonic process with minimal involvement in lower half of upper right lobe (March 30, 1956).

the respiratory rate 60 per minute. The outstanding signs at the time of admission were cough, dyspnea, acutely inflamed throat, moist rales, and diminished breath tones over the right side of the chest posteriorly.

The white blood cell count at this time was 25,800, the hemoglobin 6.5 Gm., the hematocrit 25, and the sickling of the red blood cells 44.8 per cent. The throat culture disclosed hemolytic *Staphylococcus aureus*, mannitol-positive, and the nasal culture showed nonhemolytic streptococcus and alpha streptococcus. A roentgenogram of the chest confirmed the diagnosis of pneumonia involving the lower two-thirds of the right lung.

Initial therapy consisted of oxygen inhalation, chloramphenicol, antipyretic measures, and multivitamin therapy. She was given intravenous fluids followed by 4 transfusions of sedimented cells at 24-hour intervals.

On this régime the toxicity gradually decreased and the temperature declined by lysis over a 7-day period to normal (figure 3). She was asymptomatic on the seventh hospital day.

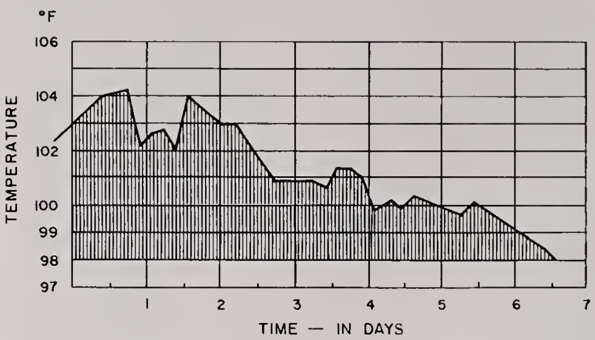

FIG. 3. Case 3. Temperature curve showing slow decline of temperature (by lysis) over a 7-day period.

DISCUSSION

The morbidity in pneumonia is dependent upon such factors as bacteremia, toxemia, fever, pain, dehydration, decreased respiratory efficiency, and acidosis. In patients with SCA there are additional hazards such as impaired nutrition, anemia, anoxia and circulatory stasis. In addition, the intrinsic pathophysiologic properties of SCA may lead to thrombosis, infarction and fibrosis of pulmonary tissue with resultant passive congestion and poor pulmonary ventilation. A combination of these factors may partially explain the greater susceptibility and delayed therapeutic response of these patients to respiratory infections.

In a previous study[1] dealing with the antibiotic therapy of pneumonia in nonanemic patients, it was observed that in the majority of cases the temperature returned to normal after 24 hours and the pneumonic process resolved in less than 7 days. These results are in striking contrast to the delayed resolution of the pneumonia often observed in patients with SCA.

In another study[2] it was noted that the average hemoglobin concentration in a large group of children with SCA was 7.7 Gm. Under ordinary circumstances they are able to maintain normal activity on this low hemoglobin level, which appears to be their "adjusted physiologic norm." However, the addition of a formidable infection such as pneumonia is sufficient to disrupt the compensation and warrants the use of additional support in the form of transfusions. It is the current policy in many clinics not to disturb the customary low hemoglobin level in these patients by administration of transfusions in the therapy of mild crises and for minor intermittent infections. We are generally in agreement with this concept which is gaining considerable acceptance at the present time. However, in unusual situations transfusions are of real value and should be judiciously employed. At present we reserve blood transfusion in SCA for the following conditions:

1. Severe crises associated with marked anemia, shock and debilitation as in "hemolytic" or "aplastic" crises.
2. In the presence of formidable complicating infections such as pneumonia, meningitis, septicemia, etc.
3. In selected cases for elective or emergency surgical operations.
4. When other medical measures have failed to control the crisis.

In view of the weakened state of the cardiac muscle in SCA from long-standing anemia and tissue anoxia, small daily blood transfusions judiciously and slowly administered are often safer than large volumes of blood. It is preferable that the blood be given in units of 3 to 5 ml. per pound of body weight and at a rate not to exceed 10 drops per minute.

The circulating cellular volume and hemoglobin mass in SCA have been found to be quite low, but the total blood volume is usually maintained near normal values by a compensatory increase in the plasma volume.[3] Therefore, in order to prevent embarrassment of the circulatory system it is preferable to used packed or sedimented blood cells rather than whole blood.

SUMMARY

Patients with SCA are particularly susceptible to respiratory infections. Pneumonia in children

(*Continued on page 674*)

TRANQUILIZERS IN GENERAL PRACTICE AND CLINICAL EVALUATION OF DESERPIDINE, AN ALKALOID OF RAUWOLFIA CANESCENS

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> The sick are aware only of their private pains, problems and miseries.

IN THE PAST 5 years as much clinical investigation and research in the field of the drugs called "tranquilizers" has been done as in the study of the barbiturates in the past 50 or more years since the synthesis of barbital in 1903. And with this vast amount of investigation and writing, many conflicts and misunderstandings have arisen not only in the medical literature but in the nonprofessional writings as well.

The great hue and cry in respect to the amount of tranquilizers prescribed (50 million prescriptions in 1957) and the amount of money ($185,000,000) spent[1] for the use of these drugs for approximately 10 million patients in or out of hospitals is not a true picture of their relative value. These figures may frighten many readers, but forward-thinking physicians must evaluate the good of these drugs as compared to other types of sedative medication and compare the excellent final results with their patients before too many derogatory statements are made.

It is difficult at times for experienced clinical investigators to properly evaluate these tranquilizing drugs. It is doubly difficult for the general physician in his every-day practice.

It is the problem of the general physician to evaluate these drugs by observation, questioning, and laboratory procedures so that he may hope to select the proper relaxant drug for each patient.

There has been a great deal of misunderstanding produced by some of the professional and nonprofessional writings in respect to the vast amount of these drugs prescribed and the length of time these drugs must in some cases be taken by the patient. Yet, there is no hesitancy in administering barbiturates in large doses for a lifetime for epileptics, or penicillin for months and years to certain cardiac patients to prevent infection, digitalis to cardiac patients, hormones to females, and other drugs for various conditions over an extended period of time, or for life. There is no complaint with these.

I believe the main problem in the cause for alarm with these relaxant drugs is not how often or how many are prescribed but the lack of true objective findings and at times the impossibility of establishing a true etiology for the neuroses or the simple psychosomatic conditions found in ambulatory patients confronting physicians today.

We must realize, and we must have our patients and the public understand, that the use of these psychopharmacologic agents is purely a supportive measure providing symptomatic relief. True, this relief is often only transient and does not alter the basic disorder or problem at hand, but the most important thing, this transiency of relief, will allow the ambulatory patient with the help of his physician to see his problem or problems in a true light and in unblunted perspective, and then, and only then, can a real approach be made toward the solution of the patient's problems.

In spite of the vast amount of scientific and nonscientific literature reported in the magazines, newspapers and other writings pertaining to the A-bomb, the H-bomb, the ICBM destructive force, and the satellites, these are but minor contributing forces in the production of "nerves" and "nervousness" and the psychosomatic illnesses seen in approximately 30 to 35 per cent of our patients in active general practice today. In a recent study done by me and reported in this paper I found that the socioeconomic factors, financial difficulties, environmental dislikes, job anxiety, illnesses (true or imagined), and the stress factor in those patients unable to cope with their situations were more important than the distant satellite, or the rumblings of aggression. The greatest single result from these factors was the production of tension in these patients.

The tension states seen by most of us in practice are found in those patients who, because of some congenital or acquired weakness, are unable to cope with certain distressing situations. This tension tends to narrow the patient's ability to observe properly, to think clearly, or to concentrate objectively, and thereby creates a lack of understanding of the very problems they try to overcome. When complete and exacting histories are taken by the physician he will find that the vast majority of the psychosomatic states presented by our patients have at their core tension. The usual statements of "I feel tense," "I feel all choked up," "I feel like there is a knot in my stomach," "I feel tight in my chest," or "I have a pain in the back of my neck and head," "It is hard for me to swallow," and ad infinitum are the results of tension states in most of these patients when complete history and physical examination fail to produce signs of organic disease or physiologic disturbance.

Tranquilizers Prior to Present-day Tranquilizers

In the events of human history each segment of humanity having to do with history likes to believe that it and it alone has had the exclusive privilege of aiding its fellow men.

We must remember that the present-day tranquilizing drugs are merely the latest addition to a long list of chemical compounds that produce certain changes of consciousness, and that we are coincidentally fortunate to be living and practicing in an age of advanced pharmacologic research. This research has improved the methods of extraction, purification, combination, and eventual production of better drugs with more accurate end-results. We must also remember that to relieve tension or other psychosomatic states chemical compounds other than tranquilizers have been used for centuries. Alcohol is one of the better known, most widely used, and most abhorred tension-relievers. Opium, hashish, chloral hydrate, and the barbiturates are but a few of the many drugs used by humanity for many years.

The tranquilizers as we know them today make it possible for physicians to create in their patients a self-transcendence with mental clarity, temporary or prolonged, thereby relieving the tension state and allowing them to carefully evaluate and to properly attack the problem creating the tension. These drugs merely change the state of consciousness. In those patients for whom the barbiturates are prescribed, consider their reactions—the dulling of the sensorium, the lethargy, the accidental overdoses, and finally the inability of the patient to properly evaluate his problems because of this lethargy. Barbiturates are used principally because they are central nervous system depressants and produce calming, soporific, and, in many instances, euphoric states. The barbiturates alone or in combination with alcoholic beverages afford an escape from anxiety, tension states, and various conflicts. The satisfied barbiturate taker is usually more disoriented and physically and mentally less competent than the patient taking present-day relaxant drugs.

The bromides were replaced by the barbiturates, and rightly so. The dangers of chloral hydrate and paraldehyde are well known to all of us.

Tranquilizers—Are They?

The word tranquility implies that one is calm, undisturbed, unruffled, placid, serene and quiet. Properly used, these drugs do not produce the "floating on clouds" type of reaction, nor do they produce the detached serenity of "devil-may-care" attitudes seen in patients taking other types of sedative medication. The purpose of therapy with these drugs is to bring the patient from a state of psychomotor tensing with all or any of the concomitant side-effects, such as tension headache, backaches, restlessness, irritability, fatigue, nervousness, difficulty in sleeping and concentration, to a state of normalcy so that he may approach his problem properly. Proper dosage for the proper length of time for each patient will help him control his anxiety, conquer his agitation, command his faculties, and once again become a useful citizen to his family, community and co-workers. Excellent results with the use of tranquilizers are seen daily in a busy general practice.

When the great amount of the infectious enthusiasm which prevails in any new field of medical research and clinical investigation simmers down to an even keel it is time to remove oneself from the inner circle and objectively evaluate the previous findings. I believe that that time is now.

We must keep in mind that the great amount of literature written about these "relaxing" drugs has to do primarily with clinical experience. Laboratory data explaining the central mechanism of action of these drugs are far behind the clinical findings and are much to be desired.

In the treatment of "psychosomatic illnesses" and the problems that beset so many of our patients in general practice we have just begun to realize the importance of these drugs. Many symptoms or complaints which were heretofore considered by the physician as psychoneurotic or imaginative, we may now find to be caused by mild or mildly severe organic conditions. These physical factors were so overshadowed by the lack of clarity of description by the patient, and in some instances the absence of understanding by the examining physician, that they were unrecognized.

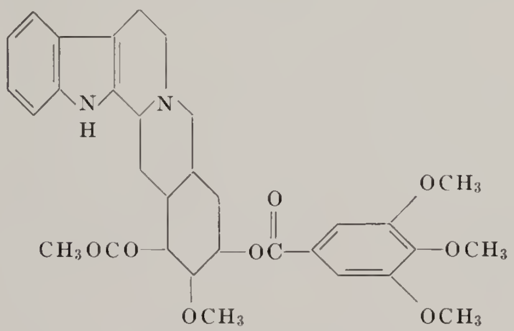
The usefulness of these drugs is greatly enhanced by their very small degree or even lack of functional disability in the majority of patients seen and treated in general practice. The role of the barbiturates and other sedatives have been relegated to a distant spot, for we are embarked upon a new era in the field of "psychosomatic medicine" and it is important for the general physician to understand these drugs thoroughly to enable him to select the proper one for his patients.

It is not the purpose of this writing to discuss the various types of relaxant or tranquilizing drugs, since many papers and a few volumes have been written about these drugs by well known physicians.

CLINICAL EVALUATION OF A TRANQUILIZER, DESERPIDINE, BY THE DOUBLE-BLIND TECHNIC, FOR USE IN GENERAL PRACTICE

The double-blind method of studying drugs has now become an established clinical pharmacologic technic. This procedure withholds from the physicians and patients the knowledge of the type of medication, active or placebo, being given, and thereby the elements of bias and suggestibility are greatly reduced.[2] Evaluation of the patient response may be more readily and more objectively accomplished.

This technic was used in this study of a new drug, deserpidine,* (figure 1) an alkaloid of Rauwolfia canescens.



HARMONYL ($C_{32}H_{38}O_8N_2$)

FIG. 1. Structural formula of deserpidine

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* Deserpidine, supplied as Harmonyl by Abbott Laboratories, North Chicago, Ill.

Deserpidine is a new alkaloid derived from the root of *Rauwolfia canescens* and was first reported in 1955 by Stoll and Hofmann,[3] who named it canescine. This alkaloid has been called recanescine[4] and raunormine[5] by other investigators. Chemical studies have identified it as 11-desmethoxyreserpine.[6]

All of the patients in this double-blind study comprised the usual type of patient seen by general physicians in their daily practice. Some had previously had sedative drugs, such as the barbiturates or their derivatives, and others had used various types of tranquilizers prior to this study for the same symptoms or complaints (table 1).

TABLE 1

Patients Selected for Double-blind Study

	Tablet A Deserpidine 43 patients	Tablet B Placebo 29 patients	Tablet C Reserpine 27 patients
Number of patients on tranquilizer prior to this study...	26	16	17
Number of patients on other sedation prior to this study...	6	3	3

Patients were selected on the basis of their complaints, presenting problems, and physical findings. Likewise they had to fit the category of tension or anxiety states with or without true organic disease. After complete physical examination, including BMR, blood studies, urinalysis, and gastrointestinal X-ray examination (in those cases in which it was deemed necessary), I again spent at least 30 to 60 minutes listening attentively to the patients' stories, complaints, and problems. Wherever I believed that this type of relaxant drug might be helpful to the patient, that patient was placed in this study.

METHODS

I was supplied with identically-appearing tablets in identical bottles individually code-labeled A, B and C. The governing code was known only to the manufacturer. When I decided to place these patients upon one of the drugs, the code-labeled bottle was selected at random from the shelf without any effort to place patients on any particular coded tablet. Instructions on the label of each bottle were identical, 1 tablet 3 times a day after meals, and another at bedtime if the patient did not feel sufficiently relaxed or was unable to sleep. I believe it is very important that any and all patients placed on these drugs should be seen at least within a week of the initial visit, and not over 2 weeks for each succeeding visit thereafter until the desired effect, if possible, is attained.

At the conclusion of this study the code letters were sent to me by the manufacturer. On examination of my records of 99 patients, I found that 43 patients had been taking the tablet code labeled A consisting of the drug, deserpidine 0.25 mg., 29 patients had been taking tablet code labeled B consisting of placebo, and 27 patients had been taking tablet code C consisting of reserpine 0.25 mg.

The dosage in all cases was purposely kept as originally prescribed to enable me to decide upon the general results with the same dosage of the 3 products.

RESULTS

Clinical evaluation in this type of study and with this type of drug is a challenge to the busy general physician. A great deal of time is required in questioning the patients and listening attentively to their responses, since there are no laboratory procedures or instruments at this time to measure the amount of muscle or cerebral relaxation with accuracy.

Reappraisal of these patients for any toxic or allergic manifestations and changes in the blood picture or urine was done throughout this study. There were no cases of jaundice, dermatitis, or other side-reactions necessitating withdrawal of any of tablets A or B, but dosage had to be discontinued in 9 patients on tablet C because of dizziness, weakness, daytime sleepiness, or loose stools (table 2).

Patients were treated over a period of 2 weeks to 5 months. The dosage schedule seemed adequate when compared with the results obtained. The factor of suggestion by the physician was kept to a minimum by a uniform approach and questioning with the aid of a profile card.

TABLE 2

Side-effects

	Tablet A Deserpidine 43 patients	Tablet B Placebo 29 patients	Tablet C Reserpine 27 patients
Dizziness	0	3	4
Dryness of mouth	3	1	6
Bizarre dreams	0	2	7
Listlessness	1	4	9
Detachment (diminished awareness)	0	0	2
Anorexia	1	3	4
Weakness, tiredness, no pep	0	8	16
Daytime sleepiness	1	4	19
Headache	0	18	4
Nausea	0	2	3
Abdominal cramps	1	4	5
Rash	0	0	0
Nasal stuffiness	1	0	4
Loose stools	0	1	3

Table 3 represents the various complaints of the patients in this study. Most patients presented multiple complaints, and each of these was checked on the profile card and recorded. The expressions nervousness, headache, tenseness, chest pain, poor sleep, and stomach pain were the most frequent complaints in almost similar order in all 3 groups. Those patients with tension headaches, tension due to job pressure or environment, menopausal symptoms, anorexia, inability to concentrate, muscular cramps and aches, irritability, nervousness and "indigestion" responded quite well to deserpidine therapy.

With deserpidine there was less abrupt hypotensive action on blood pressure than with reserpine, and less fatigue or sleepiness during the day. Acuity of awareness was better, and the patient's ability to evaluate his problems was more direct and responsive than with those patients on placebo or reserpine.

TABLE 3

Symptoms or Complaints

Descriptive or Diagnostic Category	Tablet A Deserpidine 43 patients	Tablet B Placebo 29 patients	Tablet C Reserpine 27 patients
Nervousness	39	27	25
Headache	34	24	20
Dizziness	23	11	13
Listlessness	10	1	3
Poor sleep	26	18	16
Tenseness	31	23	19
Flashes or flushes	15	8	8
Stomach pain	23	14	11
Diarrhea	2	4	1
Constipation	6	0	2
Epigastric pain	9	1	1
Rectal pain	3	0	1
Pruritus	11	4	5
Heart pain	13	4	4
Chest pain	27	18	14
Menopause	5	4	8
Angina	9	3	3
Hypertension	11	3	6
Mild psychosis	2	0	1
Extreme nervousness	8	2	2
Tension state—environmental, job, etc.	21	16	16
Anxiety state	22	12	16
Obesity	4	3	6
Coronary insufficiency	1	1	1
Senile agitated state	5	2	3
Tension headache	20	13	10
Nausea of pregnancy	1	0	2
Rheumatic heart disease	0	1	1
Rheumatoid arthritis	0	1	1
Premenstrual tension	4	9	4

NOTE: All symptoms presented by each patient are listed.

Patients receiving the deserpidine who had been taking or had previously had some type of tranquilizer noted that the deserpidine produced a smoother and more "gliding" effect of relaxation than other types used by them.

The degrees of improvement noted in table 4 observed in these patients refer to changes in their actions and response to questioning about their previous complaints, presenting symptoms, sleep habits, daily habits as related to their nervousness, or other symptoms elicited by my questioning in the original visit and checked on the profile card (figure 2) set up for this study.

TABLE 4

Degrees of Improvement

	Tablet A Deserpidine 43 patients	Tablet B Placebo 29 patients	Tablet C Reserpine 27 patients
No improvement	1	22	2
Slightly improved	2	3	8
Moderately improved	12	2	10
Markedly improved	28	2	7

DEFINITION OF IMPROVEMENT

Evaluation of any drug in this type of study is difficult, and it is difficult for all investigators. Perhaps with specific clear-cut diagnosed psychoses evaluation of specific response might be less troublesome.

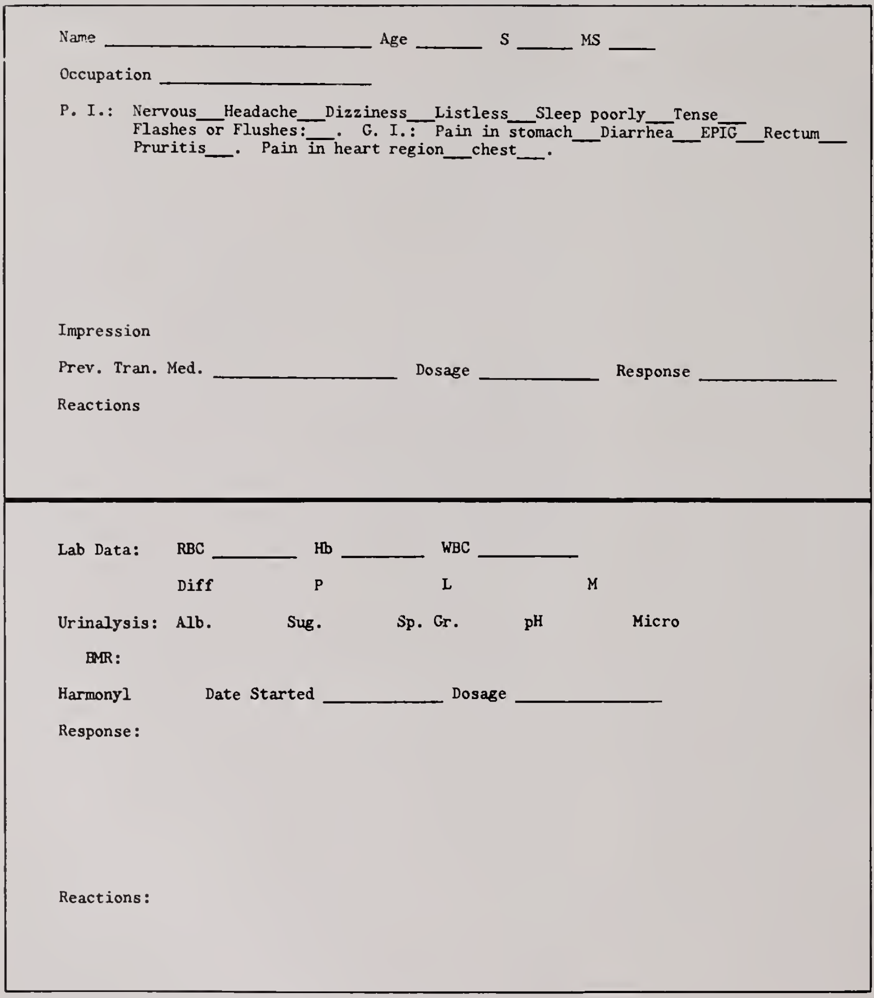
Degrees of improvement or nonimprovement must be evaluated by astute observation and proper questioning of the patient by the physician. In this study the following definitions are used:

No improvement means that there remain over 75 per cent of the presenting symptoms after a given period of time from date of first visit and beginning medication.

Slightly improved means that less than 75 per cent of the presenting symptoms and findings remain after a given period of medication, although there has been a reduction in the quantity and intensity of these remaining symptoms.

Moderately improved means that the patient presents less than 40 per cent of his initial symptoms and complaints, is well able to evaluate the causative factors producing the original symptoms, and is capable of improving his general well-being and to lead a happier and better life at home, on the job, or in other environment.

Markedly improved in this series refers to those patients who have been able to eliminate, with the aid of medication, over 75 per cent of their symptoms and complaints and can discontinue the medication with continued improvement.



Name ______________________ Age _____ S _____ MS ____

Occupation ________________

P. I.: Nervous___Headache___Dizziness___Listless___Sleep poorly___Tense___
Flashes or Flushes:___. G. I.: Pain in stomach___Diarrhea___EPIG___Rectum___
Pruritis___. Pain in heart region___chest___.

Impression

Prev. Tran. Med. ______________ Dosage _________ Response __________

Reactions

Lab Data: RBC _______ Hb ______ WBC _______

Diff P L M

Urinalysis: Alb. Sug. Sp. Gr. pH Micro

BMR:

Harmonyl Date Started _________ Dosage ___________

Response:

Reactions:

FIG. 2. Profile card (front and back)

SUMMARY

The double-blind technic was used in this study of 99 patients with many and diversified complaints or symptoms who visited the general practitioner for aid. The comparative effects of deserpidine, an alkaloid of *Rauwolfia canescens*, reserpine, and a placebo were studied and recorded.

This new drug, deserpidine, was found to have a distinct advantage in the treatment of most of the patients seen by me in my practice with "psychosomatic" complaints. The results as noted in the tables have been most gratifying in helping the physician to achieve a more accurate approach to the "normal" conflicts of everyday living, and for the patient to better understand the causative factors producing these conflicts and resultant symptoms.

There were certain outstanding features noted in this study with the use of deserpidine:

1. The drug had a much "smoother" tranquilizing or relaxing effect upon the patients during the day when awake than tranquilizers or sedatives previously used and did not interfere with their usual routine at work or home.

2. The feeling of awareness and alertness was greatly improved and there was not any disturbance to muscle control or movement.

3. Sleep-producing qualities when the patient went to bed were excellent without any additional tablets necessary through the night, yet the patient awoke refreshed and with clarity of mind.

4. Blood pressure in the hypertensive patient was lowered gently and not as precipitously as with reserpine.

5. Abrupt discontinuation of the drug did not produce any noticeable side-effects, and patients do not have to be weaned from the deserpidine.

6. It was not necessary to increase the original dosage to get the desired effects, and in many instances a diminution of dosage to as little as 0.1 mg. of this drug twice daily was excellent for the control of tension, anxiety, and nervousness.

7. In tension and anxiety states the chest pain and angina were helped greatly by the relaxing effect of deserpidine.

I feel certain that without the aid of a relaxant drug, a small percentage of these patients might very well have needed psychiatric care, and even one or two in this study might have been hospitalized for more acute and deeper psychoses.

"Psychosomatic medicine" can truly be practiced efficiently and effectively by the general physician with proper evaluation of the patient, proper selection of the relaxant drug to be used, and proper dosage level for each individual patient.

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BIBLIOGRAPHY

1. Frohman, I. P.: Psychiatry for all (ed.). M. Ann. District of Columbia, 1957, **26**, 368.
2. Conference on Therapy: How to evaluate a new drug. Am. J. Med., 1954, **17**, 722.
3. Stoll, A., and Hofmann, A.: Canescine and pseudoyohimbine from the roots of Rauwolfia canescens I. J. Am. Chem. Soc., 1955, **77**, 820.
4. Slater, I. H., Rathbun, R. C., Henderson, F. G., and Neuss, N.: Pharmacological properties of recanescine, new sedative alkaloid from Rauwolfia canescens Linn. Proc. Soc. Exper. Biol. & Med., 1955, **88**, 293.
5. Packman, E. W., Abbott, D. D., and Harrisson, J. W. E.: Preliminary study of the pharmacology of 11-desmethoxyreserpine (raunormine), an alkaloid from Rauwolfia canescens II. J. Am. Pharm. A. (Scient. Ed.), 1956, **45**, 89.
6. Harrisson, J. W. E., and others: Toxicity and chemistry of 11-desmethoxyreserpine (raunormine) (3,4,5-trimethoxybenzoic acid ester of methyl-11-desmethoxyreserpate), an alkaloid from Rauwolfia canescens. Ibid., 1955, **44**, 688.

RECURRENT PAPULO-ULCERATIVE PROCTITIS

Report of a Case

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AN UNUSUAL CASE of acute proctitis with sharply defined, discrete, ulcerative lesions was observed during an initial episode and during subsequent relapses or recurrences. The rectal lesions did not appear to be like any that have been described. The clinical course and diagnostic studies made in an attempt to define a causative agent are reported.

REPORT OF CASE

A 40-year-old housewife and Government clerk was seen on December 14, 1956, complaining of diarrhea with 3 to 4 semiformed movements daily for approximately 6 days. For 3 days considerable blood-tinged mucus had been noted in the rectal discharges. No nausea, vomiting, abdominal pain, fever, chills or other complaints were elicited. Her last visit had been on November 9, 1956, at which time she complained of a "flu or virus" infection during the preceding 5 weeks. She had experienced nocturnal sore throat, muscular pains in the lower back, lassitude, headache, chilliness, postnasal drainage, and recently a cough productive of small amounts of white, opaque sputum. No gastrointestinal symptoms accompanied this illness. Myringitis, nasopharyngitis with mild tonsillar involvement, and minimal anterior cervical adenopathy were noted. She was afebrile. The respiratory infection improved after 3 days of erythromycin-sulfonamide therapy, but she continued to feel vaguely indisposed and below par.

The past history was essentially irrelevant. She had been seen frequently since February, 1954 for anxiety, easy fatigability, tachycardia, and constipation for which no organic cause had been found. Significant organic disorders had not been found. Mild upper respiratory infections occurred occasionally. Medication had consisted of resperine, 0.25 mg. daily, and phenobarbital, 16 mg., or meprobamate, 400 mg. once or twice daily. Estrogenic therapy (Premarin) had been prescribed by her gynecologist. All medication was discontinued at the onset of the proctitis.

Essential physical findings throughout the illness which is being reported were limited to the rectum. She had no constitutional reactions except mild debility and a poor appetite, the latter apparently accounting for a weight loss from 105 to 98 pounds. Subsequent acute diarrheal episodes were accompanied occasionally by mild, cramping lower abdominal pain preceding or during defecation, but there was no tenesmus. The lesions observed during each recurrence always presented the same appearance and followed a consistent course of healing. These will be described later and until then will be referred to as acute or subsiding. All proctoscopic examinations were performed without preliminary preparation, thus eliminating the possibility of mucosal changes or exudation which might have been induced by the irritating effect of cleansing.[1, 2] Specimens of the rectal discharges for bacteriologic, parasitic and viral studies were obtained in most instances by aspiration of mucopurulent material through the proctoscope, although some were obtained by cotton applicators applied to the rectal wall or directly to the lesions.

The initial proctoscopic examination on December 14 revealed external hemorrhoids and a thrombosed internal hemorrhoid which had become symptomatic following the onset of diarrhea. Extraordinarily large quantities of gray, mucopurulent discharge, some of which was grossly sanguineous, was found throughout the rectum. The most striking feature was the presence of numerous small, discrete lesions throughout the rectum with normal intervening mucosa. The lower portion of the sigmoid was observed with ease, and it was apparent that the mucous membrane was normal. The purulent discharge, which had been observed in the rectum, apparently arose from that segment of the bowel only. Diarrhea subsided gradually, and by December 18 the patient reported that there was only 1 bowel movement which was of normal consistency and without mucus during the previous 24 hours. Proctoscopic examination on this date revealed that the lesions were still detectable but in a healing phase. A tendency to constipation developed and persisted until January 2, 1957, at which time there was a recurrence of acute diarrhea accompanied by discharge of bloody mucus. Proctoscopic examination was not performed at that time. The diarrhea persisted, and it was decided to administer a therapeutic test for amebiasis despite consistent failure to discover *Endamoeba histolytica* in the rectal discharges. Carbarsone, 250 mg., was given twice daily for 10 days, beginning on January 7. Diarrhea continued until January 10, after which the bowel habit became normal with the exception of a subsequent tendency to constipation. It appeared later that the cessation of diarrhea followed by constipation represented the natural course of her illness rather than a therapeutic response to carbarsone.

On January 19 the patient experienced chilly sensations, and her temperature rose to 101°F. There was generalized aching and a mild sore throat. Diarrhea returned abruptly at this time with 4 to 5 loose movements daily, and there was considerable mucus. She was not seen until January 22, at which time the physical findings were still limited to the rectum. There was perianal dermatitis and large, protruding hemorrhoids which did not bleed. On proctoscopic examination numerous lesions were again observed in the rectal wall, and they were identical with those observed during the examination performed in December. The patient was admitted to the George Washington University Hospital on January 23, where proctoscopic examination revealed that the rectal lesions were essentially unchanged. However, diarrhea had subsided by this time.

During her 7-day period of hospitalization until January 30 there was a transition to a period of obstipation requiring enemata. Despite changing symptoms the rectal lesions were observed on January 24 and 28, but they appeared to be in a healing phase. On February 2 there was a sudden recurrence of diarrhea which, at the onset, was more severe than the previous episodes. Proctoscopic examination was performed immediately but revealed no abnormalities, there being a complete absence of lesions previously observed. By February 5 symptoms had become very severe, with 10 or more liquid bowel movements daily with large amounts of bloody mucus. On endoscopic examination of the rectum at this time large quantities of sanguineous, mucopurulent discharge were observed and the rectal mucosa was again studded with numerous acute lesions identical with those noted before. On February 7, at which time the lesions were beginning to heal, a biopsy of a typical lesion was done. During this exacerbation material was obtained from the throat, rectum and rectal discharge for viral studies. As preliminary reports on these studies of material obtained from these 3 sources revealed the presence of a virus which manifested a cytopathogenic effect, she was rehospitalized for 4 days for further diagnostic investigation. She was discharged on February 11 and had no subsequent rectal complaints with the exception of some mucus in the bowel movements on March 24 and 6 diarrheal movements with mucus on March 26. Proctoscopic examinations performed on February 20, March 6, March 25 and March 27 revealed only asymptomatic hemorrhoids and mild cryptitis.

Administration of reserpine and meprobamate was resumed. When seen on May 2 the patient had no complaints. However, numerous ecchymotic areas were noted over the trunk and the upper and lower extremities, particularly the latter. These had appeared gradually since April 1. Bleeding and clotting time and the platelet count were normal. There were no hepatosplenomegaly, adenopathy, fever nor abnormalities of the blood count. The tourniquet test was markedly positive. All medication including meprobamate was discontinued, and she was placed on high doses of ascorbic acid as her restricted diet suggested a possible vitamin C deficiency during her preceding illness. By May 28 her general health was good, her weight had returned to normal, and the ecchymotic areas had disappeared, but the tourniquet test remained mildly positive. By June 26 ecchymotic areas were again evident. There were a low-grade fever and a leukocytosis of 12,300 with 84 per cent polymorphonuclear cells. The tourniquet test was markedly positive at this time. Recurring purpura, apparently unrelated to her previous episodes of proctitis, persisted until August 7. The patient has been symptom-free and objectively well since that time.

Description of lesions. The initial lesions developed abruptly throughout the rectum as erythematous papules of a somewhat violaceous hue. These sharply circumscribed areas were uniformly oval-shaped elevations approximately 2 by 4 mm., most numerous about the valves, and with the long axis directed in the horizontal axis of the bowel. These areas developed into ulcers with a central, firmly attached, white core in about 48 hours. Regression occurred in most instances by mucosal bridging, the grossly normal mucosa from contiguous uninvolved areas appearing to extend over the elevations which were still discernible. In some lesions excavation of the central necrotic area ensued leaving shallow, punched-out ulcers lined with clean mucosa and surrounded by erythematous, elevated peripheral margins. These lesions did not macerate nor bleed when swabbed with a cotton applicator. The intervening mucosa appeared normal at all times, was never granular nor friable, and the lesions remained discrete without any tendency to coalescence. Regression was completed by a gradual diminution of the elevated area and a fading of the erythema. During periods of remission the mucosa presented no changes by which the sites of previous lesions could be identified.

Symptoms were most acute immediately preceding the initial development of the lesions and during their earliest phase, whereas the patient was relatively asymptomatic or was constipated later despite the fact that the lesions were still present or only beginning to regress. The lesions tended to appear in crops, and at any time various phases could be identified in 1 area of the rectum. There was no definite time interval between exacerbations, but progressively shorter intervals were noted between attacks, i.e., 26 days, 17 days and 14 days. In contrast to the severity and the acuteness of the rectal manifestations, constitutional disabilities were noteworthy by their mildness

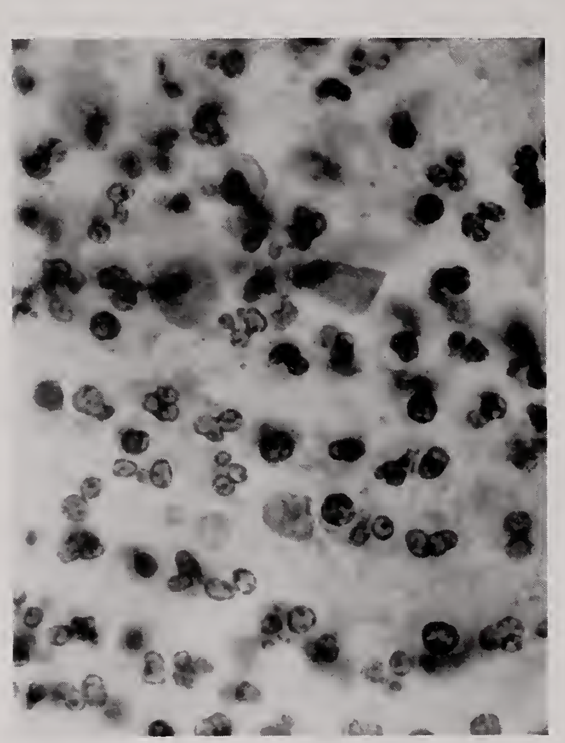

Fig. 1. Microphotograph of cellular exudate of rectal discharge showing its nonspecific, inflammatory nature. Polymorphonuclear cells predominate. Epithelial cells, small round cells and 1 macrophage are also seen.

Laboratory data. Parasitic and viral studies were done in research laboratories particularly interested in such problems. Ten specimens of material aspirated through the proctoscope were examined and none revealed any evidence of *E. histolytica.* Zinc sulfate concentration tests were negative for ova and cysts. Six cultures in cholesterol-enriched liquid rice-starch media were also negative for *E. histolytica* as was the complement fixation test. Considerable mucus, numerous leukocytes, red blood cells, epithelial cells and macrophages with ingested red blood cells were found in the purulent discharge (figure 1). Charcot-Leyden crystals were seen on 1 occasion. One culture for bacteria grew *Aerobacter aerogenes* and *Proteus vulgaris,* another culture grew *Escherichia coli.* Multiple agglutinations were negative on 2 occasions. The hemogram and erythrocyte sedimentation rate remained normal and unchanged throughout the course of the illness, except as mentioned in the protocol.

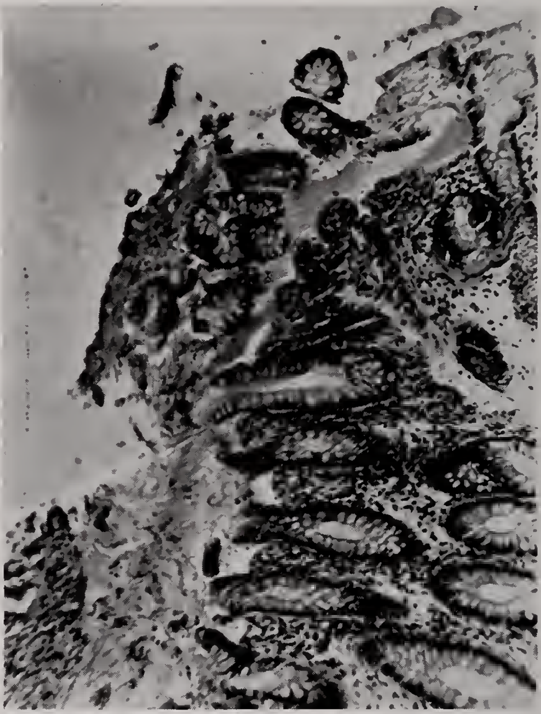

Fig. 2. Biopsy of a healing rectal lesion with mucosal bridging. There is distortion of the glandular pattern, cellular infiltration, and edema.

On February 6 material from the rectal lesions and discharge was inoculated into tissue culture roller tubes containing HeLa and monkey kidney cells and into suckling and adult mice. On February 8 and February 11 material from the throat and rectum was inoculated in the same manner. A marked cytopathogenic effect was observed within 24 hours in several of the viral tubes from both rectal and throat specimens which was suggestive of a Coxsackie or herpetic viral effect. The virus was successfully carried through 1 transfer and was recovered from tissue tubes and subinoculated into mice. Its cytopathogenic effect was then lost and identification was not possible.

Biopsy of a typical healing lesion with mucosal bridging was done February 20 (figures 2 and 3) and was reported as follows: "There are 3 pieces of tissue. One of them is a fecal mass with bacteria, vegetable fibers and necrotic débris. The other 2 pieces are specimens of the rectum and show telangiectasis of the submucosa and edema of the muscularis mucosae. The lamina propria is engorged and contains more lymphocytes and plasma cells than is usual. There is mucus at the surface with occasional polymorphonuclear leukocytes and mononuclear macrophages. There is no frank area of ulceration, and no amebae nor Balantidia are seen. The mucosa shows no specific change. One of the 2 sections has a small lymphoid nodule in the submucosa which shows hyperplasia. Diagnosis: acute and chronic nonspecific proctitis."

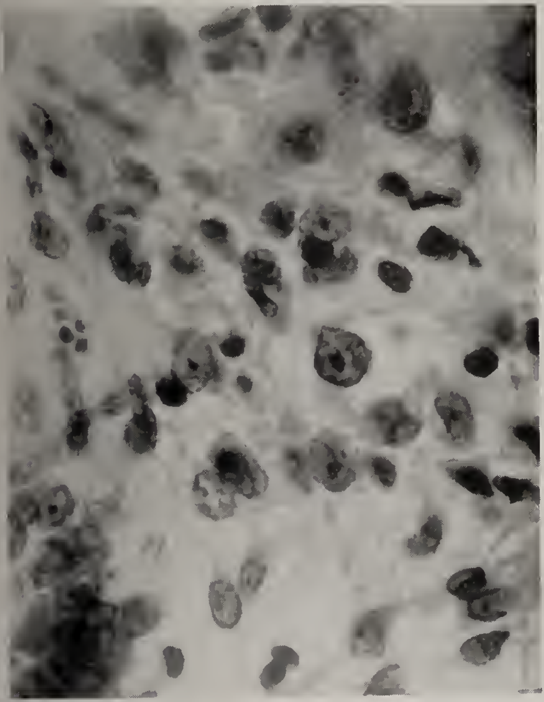

FIG. 3. Inflammatory nature of the cellular infiltration

DISCUSSION

An attempt was made to exclude ulcerative colitis of nonspecific, amebic, bacillary or other bacterial nature by reliable laboratory studies and careful observation of the appearance of the lesions and of the clinical course of the disease. The Frei test was negative. An unusual manifestation of drug toxicity can be excluded by the recurrences of the lesions long after termination of drug therapy. The occurrence of nonthrombocytopenic purpura 6 weeks after complete disappearance of the proctitis adds confusion to the clinical problem. This was first considered to be a toxic reaction to meprobamate. However, the recurrence of purpura several weeks after discontinuance of meprobamate and the absence of other hypersensitivity phenomena suggest a purpura simplex which may be observed in certain ill-defined chronic infectious conditions.[3]

The probability of an infectious agent is indicated by the possible relationship to a preceding acute respiratory infection, the sudden appearance of the rectal lesions, the purulent nature of the rectal discharges, and the relapsing course of the disease. In these particulars the condition simulates nonspecific ulcerative colitis. However, the papular lesions with the normal, nonfriable intervening mucosa in no manner resembled the rectal changes noted in this disorder. The clinical course with prompt recovery and no recurrence for more than 2 years does not favor such a diagnosis. In addition, there was no leukocytosis, the sedimentation rate was normal and unchanged, and there was no anemia.

Failure to identify a bacterial or parasitic agent in this disorder which appeared to be infectious in nature suggested the possibility of a viral agent. The lesions developed in crops in various stages of acuteness and healing, and in this respect the condition was comparable to varicella. The appearance of the lesions was strikingly similar to the oral lesions of herpangina due to Coxsackie B virus. In 1952 a patient of Dr. Alfred Baer had a similar episode in which the rectal lesions and symptoms were very similar to those of this patient. In his case the appearance of the lesions was followed in 4 weeks by the development of penile herpes simplex. Both patients were seen by Dr. Clarence R. Hartman, who thought that the rectal lesions were identical.

Preliminary viral studies were encouraging because of the marked cytopathogenic effect evidenced within 24 hours. Had a virus of the Coxsackie group been isolated, successful proof of an etiologic relationship would not have been established because of the frequency with which this virus is found. As Huebner and his associates[4] have stated, ease of demonstration makes it difficult to assess the significance of the role of the Coxsackie virus in human disease. Serologic studies were not done because the response may be misleading. Heterotypic responses may be equal to or greater than the response to the homotypic virus. Specificity of neutralizing antibodies makes possible a serologic diagnosis, but multiplicity of viral agents makes determination of the antibodies impracticable for clinical use. Establishment of a viral agent as the cause of a sporadic illness such as in this case presents a greater problem than an endemic or epidemic illness. However, awareness of this condition and continued observation and investigation may possibly lead to the identification of a causal agent. The nonspecific changes in biopsy specimens and cellular exudate[5] unfortunately yield nothing definite regarding causation of this disorder but tend to arouse suspicion of a viral agent by their exclusion of some of the known causes of ulceration of the colon. Failure to identify a virus and to establish its pathogenicity does not exclude the possibility that a virus may play a significant role in this case.

SUMMARY

An unusual case of recurrent papulo-ulcerative proctitis is described with observations made during the initial episode and during subsequent exacerbations and remissions. An agent known to cause ulceration in the rectum could not be identified. Inconclusive viral studies do not exclude the possibility of a viral agent.

N.B. The assistance of Dr. Clarence R. Hartman, Associate Clinical Professor of Medicine, George Washington University School of Medicine, in the clinical investigation of this case is gratefully acknowledged.

BIBLIOGRAPHY

1. Epstein, J., and Hartman, C.: Comparative study of enemas on the lower colonic segment, in press.
2. Page, S. G., Jr., Riley, C. R., and Haag, H. B.: Comparative clinical study of several enemas. J.A.M.A., 1955, **157**, 1208.
3. Harrison, T. R., and others, editors: Principles of Internal Medicine, 2nd ed. New York: Blakiston, 1954, chap. 26.
4. Huebner, R. J., and others: Medical progress; importance of Coxsackie viruses in human disease, particularly herpangina and epidemic pleurodynia. New England J. Med., 1952, **247**, 249 and 285.
5. Bercovitz, Z.: Studies in cellular exudates of bowel discharges; diagnostic significance of cellular exudate studies in chronic bowel disorders. Ann. Int. Med., 1941, **14**, 1323.

President's Page

REPORT TO THE STOCKHOLDERS

The Report of the Chairman of the Executive Board and the Report of the Secretary were published in the October issue of the ANNALS, so you are familiar with what has taken place since we assumed office nearly 18 months ago. I should like, in this my last page, to comment on some of the things which impress me as particularly significant.

Returns from a questionnaire to committee chairmen and members of the Executive Board indicate that problems in the broad field of medical economics gave rise to more interest, study and controversy than those in any other area. Blue Shield, Medicare, Industrial Health, Relative Value Scale, Corporate Practice of Medicine and other related problems involved in the Third Party in Medicine were given much deliberation. The issues involved are urgent. The Relative Value Scale will give our Society a tool with which it can work and deal effectively with third parties.

Revision of the Constitution and By-laws and new quarters in the Medical Society Building make for increased efficiency in administrative work. The establishment of the Medical Council of the Washington Metropolitan Area, consisting of representatives from 2 large states and the District of Columbia, cuts across political and geographical boundaries and serves as a marketplace for the exchange of ideas about mutual health needs. The Medical Economics Forum in March, sponsored by this Council, proved an outstanding seminar. The Council on Rehabilitation, also having representatives of the several societies in the Metropolitan Area, renders an invaluable community service. Because of the satisfactory experience of these two Councils, the newly formed Committee on Aging is also being set up on an area-wide basis.

The ANNUAL SCIENTIFIC ASSEMBLY and the MIDWINTER SEMINAR continue to be well received. Attendance at some of our scientific meetings, as well as that of other medical organizations in the District, has been disseminated because of conflicting loyalties and commitments. The formulation of a Postgraduate Program under the sponsorship of the Medical Society and the three medical schools is being explored to bring about unity of interest and effort.

Last month I attended a meeting of the Pennsylvania State Medical Society where the director of a radio station was selected as the layman who had made the most outstanding contribution to the health of his community. After graciously accepting the award, he recommended that the Society employ the best public relations firm obtainable to find out what is wrong with and to seek means of improving relations between the medical profession and the public. In an era when medicine is accomplishing more than ever before in history, we should attempt to learn the reasons for the decline in prestige of our profession, as indicated by the number of malpractice claims against its members.

James W. Watts

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Editorials

THE WAY OF LIFE

Physicians everywhere are dedicated to the preservation of life. The good physician is concerned with the good life, life which is more than the absence of death. He accepts the inevitability of individual death and the desirability that it be graceful. Therefore, his real devotion and reverence are for the ever-flowing Stream of Life which is immortal and beyond the mortal.

The special religion of the physician transcends narrow dogma and formal ritual, embracing a code of true ethics consonant with a high personal morality. His real communion under this code is with his conscience. In the lonely and isolated part of his dual life he takes stock of his relations with his patients, the segment of humans who receive most of his debt to all society. The payment of this debt

Opinions expressed in contributions to the Editorial Section are those of the writers and do not necessarily reflect the views of The Medical Society of the District of Columbia

is the overt measure of his homage to a priesthood of service. For medicine is a priesthood, not of privilege but of duty, not of taking but of giving. Its concern is with human suffering, broadly, and not simply with pain.

These values are the heritage of the ages, the riches of tradition. Our professional skills are rooted in them so deeply that in enjoying their high-hung fruits we easily forget their origins. Our quest for science and our recognition of the accelerating growth in technic may dim our vision to less mutable truths, and we may endanger our balance in headlong speed.

CHRISTMAS

Christmas is inside you,
Not on tree boughs hung;
Christmas is inside you,
Not by carolers sung.
Holly wreaths and candles,
Gay parcels to and from,
But if it's not inside you,
Christmas hasn't come.

A. L. E.

The Christmas season is suited to personal review of motivation and clarification of dedication. It is a season to measure our footsteps on the Way of Life, and especially to check their waywardness on enticing but ultimately unsatisfying byways. Followed so closely by a new year, this is a time for the hardening of resolution for rededication to the longer view, the more distant but greater reward. In an age when there are few or no heroes, it is a time for every physician to become more heroic. If the times are troubled, the opportunity is greater. If the effort is more exhausting, success will be sweeter.

Today, with the mixing of the ideal and the practical, of duty and intangible values with science and materialism, medicine faces its greatest challenge. To withdraw into obstinate reaction and to refuse stubbornly to adjust to revolutionary social change and need, here and everywhere, will be to fail miserably to preserve some of the most cherished possessions of our profession.

To accept all the challenge we face will require each of us to be heroic, to be aware of and face up to a multiplying maze of problems, especially in economic areas. We must realize too that ours is, frighteningly, the best present entree to international understanding of the ways in which men can live together. Thus ever broadening, ever more complicated though it be, the true Way of Life must be the Way of Medicine.

D. S.

AGING, THE PHYSICIAN AND THE COMMUNITY

In 1900 there were 3,000,000 people in this country 65 years of age or older. By 1956 it had exceeded 14,000,000, and it has been predicted that by 1965 there will be some 25,000,000 senior citizens. Of more significance, there will be 75,000,000 over 45 years of age, and of this number, with present morbidity rates, about 20,000,000 will have cardiovascular disease, an equal number some form of arthritis, and 15,000,000, mental disorders. Quantitatively, this is the problem of aging.

Recognizing the importance of this, the AMA created a Geriatric Committee under the Council on Medical Service in 1955. This was changed the following year to the Committee on Aging, with the realization that the scope of activity had to be broadened. Last month representatives of the state medical societies and health officers participated in a National Conference on Aging. Although a 6-point health program for older citizens is being prepared for future publication, there were certain important concepts that seem worthy of reporting at this time.

First, it is not sufficient for physicians to just treat the sick where chronic illness is concerned. While the primary problem is usually medical, with prolongation, social and economic pressures become more significant. The physician must take cognizance of these. These pressures are being felt more each day, and since the population over 65 is increasing at better than twice the rate of the general population, the magnitude of these pressures can be expected to increase. The physician must participate in community planning in many areas that he has had little interest in before. For example, it is imperative that patients with prolonged illnesses be located in the proper type of environment. If this is to be, the medical profession has to concern itself with housing, nursing and housekeeping services, foster home programs, and, as has already been realized, with nursing and convalescent homes. He must, of course, know about sources of financial assistance and rehabilitation services present in the community, and even recreational and avocational facilities, but he must do even more—he must contribute his time, advice and leadership in community planning for these services if optimum results are to be obtained. The physician has to join forces with people of other disciplines to form a team to meet this multi-faceted problem.

Secondly, whatever is done must be accomplished at the "grass roots" level. Recommendations by the AMA, Public Health Service, or other similar groups can accomplish little if the individual physician does not participate. There has to be a source of technical advice, but of equal importance is communication to the effector, the practicing physician for practical application. The Medical Society, and more particularly the Committee on Aging, must accept the responsibility for keeping abreast of developments in this field and act as liaison between other groups in the broader "gerontologic" area and the members of the medical profession.

Thirdly, there is perhaps no area in the field of medicine where preventive efforts are so meager. It has been pointed out that Americans are "future oriented." As a matter of fact, it has been facetiously stated that we are so busily concerned with future planning that when it becomes the present we have no time to enjoy it, because we are so interested in the future, and so on. This would seem to be substantiated by the marked contrast in pediatrics, where we have seen the epitome of periodic examinations, immunizations, diet planning, interest in emotional problems, and even active concern with completely nonmedical items.

On the other hand, the indicated approach to geriatrics and pediatrics would seem to be quite similar although these fields lie at opposite ends of the chronologic spectrum, for, as in pediatrics, a good start in geriatric medicine should lie in an adequate periodic examination. The participants in the Aging Conference were in agreement that there are few oldsters who are sufficiently self-motivated to set up their own program of preventive medical care. It was a little startling, however, to find that even in those self-motivated individuals there was a marked variance in the examination they received and that in many instances it was incorrectly oriented or even inadequate.

The AMA Committee is, and has been for some time, actively engaged in putting together representative history, physical examination, and follow-up forms. They have been so engaged for an extended period, because even such a competent and well oriented group has had difficulty arriving at what should and what should not be included. In addition to what we would consider a good historical review, it would seem important in this type of patient to determine habits, particularly those related to diet, vocational and recreational interests. In the physical examination particular attention should be paid to the general hygiene, which tends to become lax in this group, to evidence of nutritional deficiencies, and to mental and emotional aberrations. An adequate evaluation of sensory organs is particularly important, since corrective prosthetics can markedly influence the total function of the individual. The physical examination might well then include tonometry for increased intra-ocular tension and audiometry for more specific data on hearing impairment. Particular attention should be paid to the dental status and the need for dentures. Because of the increased incidence of certain disabilities with age, the periodic chest X-ray examination, electrocardiogram, and even sigmoidoscopy assume added importance.

Such a satisfactory examination oriented to the problems of the aging could well serve as a springboard to active interest in other aspects of preventive gerontology.

Finally, all those interested in aging and chronic disease urge a philosophy of action. If progress is to be made, and it must if this increasingly demanding problem is to be met, the physician can no longer rationalize passive inactivity because of the age of the patient. He must approach aging and chronic disease actively and optimistically, and if he does, the rewards are there, because the rehabilitative potential of this group has been well demonstrated.

Jack Kleh, M.D.
Chairman, Committee on Aging

MOUNTAIN MEDICAL SCHOOLS?

In time of a major war our medical schools would suffer destruction because of their predominantly urban locations. Medical education would have to continue in spite of this. Many problems can be envisioned in planning for such an eventuality. These pertain to personnel, equipment, curriculum, and laboratory facilities, to name a few.

In an effort to give realistic consideration to the overall problem, Georgetown University recently set in motion Operation Hilltop. This consisted of removing one entire medical class to a resort hotel in the Blue Ridge Mountains, in the company of approximately 15 faculty members. A class was conducted and at the same time the faculty members analyzed the building for its adaptability to the problem under consideration. Their observations will be the subject of a later, more detailed report.

It was apparent that the general location was a good one, being reasonably accessible to several sizable cities from which faculty and students could be recruited. Also, there are quite a number of hospitals in the area which would lend themselves to the teaching program.

Minor alterations would be necessary to such a structure. Housing accommodations are ready-made. Large community rooms such as exist in this structure would provide much of the necessary classroom and laboratory space. Removal of a few partitions would supply the rest. In anticipation of this use for such a building, some plumbing alterations might be provided in advance at minimal cost.

Single copies of basic texts and laboratory manuals can be stockpiled along with duplicating equipment. Microscopic material can be readily photographed for projection on a large screen in place of actual microscope work. Important lectures and conferences can be recorded on tapes and stored.

Alterations in curriculum would be necessary. The problem here is to balance the need to supply physicians rapidly against the need to supply physicians who are more than trained technicians.

Disaster planning is a massive problem—so massive as to encourage frustration. If we will consider each segment of the problem individually, however, a great deal can be accomplished. There is an old Chinese proverb popularized by the Christophers, which says, "Better to light one candle than to curse the darkness."

James Edward Fitzgerald, M.D.

OPHTHALMOLOGY AND THE BASIC SCIENCES

During the last 10 years, formal lectures in all phases of clinical ophthalmology have been presented for 6 months each year at the Episcopal Eye, Ear and Throat Hospital for the resident staff. These lectures, given by the attending staff, have been on a purely clinical level and have often been attended by other members of the staff as well as Service ophthalmologists and residents in ophthalmology from the Government hospitals of the Metropolitan Area.

This year two changes have been made in this excellent program. First, the Episcopal Eye, Ear and Throat Hospital has moved to the Washington Hospital Center, and the Department of Ophthalmology now has the advantage of a closer relationship with all phases of medicine. Second, under the excellent leadership of Dr. Benjamin Rones, the Committee on Instruction has arranged an outstanding program giving emphasis to the basic sciences in their relation to clinical ophthalmology. Prominent educators in the field of medicine, researchers in medical institutions and pharmaceutical companies, and excellent clinical ophthalmologists have been recruited throughout the country for a lecture series which started November 8, 1958 and will continue each Saturday through May 23, 1959.

Beginning in January the following lectures are scheduled:

January 10, 24, 31, February 7, 14, 21: Dr. Lorenz E. Zimmerman, Chief, Section on Ophthalmic Pathology, Armed Forces Institute of Pathology: *Pathology*; Dr. Arthur M. Silverstein, Chief, Immunochemistry Section, AFIP: *Immunochemistry*

January 17: Dr. Edward W. D. Norton, Chief, Division of Ophthalmology, University of Miami: *Disturbances of Eye Movements*

February 28, March 7, 14, 21: Dr. Seymour P. Halbert, Associate Professor of Microbiology, Columbia University: *Microbiology*

March 28: Dr. Carl J. Witkop, Chief, Human Genetics Section, National Institute of Dental Research: *Genetics*

April 4, 11: Dr. Harry Green, Biochemistry Research Section, Smith, Kline & French Laboratories, Philadelphia: *Biochemistry and Physiology of the Aqueous*

April 18, 25: Dr. Irving H. Leopold, Professor of Ophthalmology, University of Pennsylvania: *Pharmacology*

May 2, 9: Dr. David D. Donaldson, Associate in Ophthalmology, Harvard Medical School: *Neuroanatomy*

May 16, 23: Dr. Paul Boeder, Department of Ophthalmology, State University of Iowa: *Optics*

While this series of lectures is again primarily intended for residents in ophthalmology of the area, local ophthalmologists and other physicians are welcome to take advantage of this excellent opportunity. The lectures occur each Saturday morning at 8 o'clock in the Glaucoma Clinic of the Washington Hospital Center. Further information may be obtained through the Hospital Center or from Dr. Rones.

F. D. C.

125th Meeting of

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

Annual Exposition of Science and Industry

December 26–31, 1958

Sheraton-Park Hotel, Washington

Registration Fee: $3.00

All members of the Medical Society are cordially invited to attend.

In and Out of Focus

BY THE OBSERVER

Asian Influenza Situation

About a year ago the District Commissioners appointed the Asian Influenza Advisory Committee, anticipating the possibility of an epidemic and the need for expert advice. Fortunately, an emergency did not materialize. However, the Committee was not dissolved and has been on a stand-by basis ever since.

To date there has been no indication that more than a seasonal upsurge of influenza will occur. It was therefore a surprise to some members of the Committee when a statement appeared in a recent newspaper magazine article ascribing to Dr. L. E. Burney, Surgeon General of the Public Health Service, the view that a serious outbreak of Asian influenza was anticipated.

This statement came to the attention of Dr. Clifton R. Gruver, Chairman of the Committee, who thought it unfortunate, in view of the lack of evidence that an emergency was imminent. Other members of the Committee concurred in this opinion and agreed that Dr. Gruver, Dr. Daniel L. Finucane, Co-chairman of the Committee, and the Secretary of the Medical Society should arrange a conference with representatives of the Public Health Service. This conference was held and attended by the following representatives of the Service: Dr. W. J. Zukel, Assistant to the Assistant Surgeon General; Dr. Carl C. Dauer, Medical Advisor, National Office of Vital Statistics; and Dr. J. B. Hozier, Chief, Federal Employees Health Branch.

At this conference it was learned that recommendations with respect to the vaccination of civilian Federal employees against Asian influenza had been prepared. These pointed to the probability that some influenza would develop in the fall and winter and suggested to Federal agencies the advisability of vaccinating key employees to prevent disruption of essential services. They also set forth the basis on which this should be done and the administrative procedures to be followed.

The Committee held a meeting on October 23, at the Medical Society's building, to consider the recommendations. On the day it met Dr. James W. Watts, President of the Society, was in receipt of a letter from Dr. Burney enclosing a copy of the proposed recommendations, which read in part:

"Since the District Medical Society will have an important part in any of the programs carried out in Washington, D. C., I am sending you a copy of the tentative Public Health Service statement for your information and comment. Any suggestions that you may have that might facilitate the implementation of this program will be most welcome. Plans for such vaccination programs should be undertaken as soon as possible.

"I feel certain that we can look forward to a continuation of the good coöperation that the District Medical Society and the Service have had in the past."

The question then was what position the Committee should take with respect to the recommendations. Objections were again raised that the influenza situation did not justify a statement which would unnecessarily alarm the public; furthermore, if the recommendations were implemented, there would be widespread demand for a similar program outside the Government. As several saw it, it was inevitable that the result would be an immediate demand for vaccine, which, according to the information at hand, was in short supply. A wide-scale purchase of vaccine by the Government would therefore precipitate an acute shortage for other citizens.

The Committee was unanimously of the opinion that publication of the recommendations might jeopardize the vaccination of people who were mentioned as special risks by Dr. Burney, i.e., those suffering from cardiovascular or lung diseases or metabolic disorders, older individuals who have chronic illness, and also pregnant women.

It was finally decided that Dr. Watts should be requested to relay the views of the Committee to Dr. Burney, which he did. Thereafter, an investigation by both Dr. Burney and the Committee disclosed that there were ample supplies of the needed vaccine unless a serious epidemic occurred. In the light of this information Dr. Burney decided the only safe procedure was to proceed with his original plan. Dr. Burney was assured that the Committee would lend its wholehearted coöperation.

The Committee held another meeting on October 31, 1958, at which it adopted a "statement of policy" with respect to the Asian influenza situation. This statement, which has been sent all members of the Medical Society, reads as follows:

"After intensive investigation and based upon the available information to date, the Asian Influenza Advisory Committee for the District of Columbia expects there will be the usual localized peak outbreaks of influenza and upper respiratory illness this winter, and probably there will be more influenza-like illness this year than in the previous years except for the winter of 1957. However, at this time we have no evidence of the existence of an outbreak of a specific strain of influenza which might be expected to cause an epidemic in the Washington area. Therefore, this Committee makes the following recommendations:

1. Vaccination is an accepted public health practice and we believe it is advisable for people to be vaccinated if medically indicated. Persons should seek advice from their physicians concerning their individual needs.

2. We particularly urge that special medical risk groups of persons be vaccinated against influenza in the immediate future. These special medical risk groups include persons over 55 years of age suffering from chronic diseases and persons of all ages suffering from cardiovascular or lung diseases, metabolic disorders, or recurrent respiratory infections. Pregnant women should also be included in these special medical risk groups.

3. Persons who desire advice concerning the medical indication and their particular need to be vaccinated for influenza should consult their physician.

4. A mass influenza vaccination program for employee groups is not warranted at this time.

"Insofar as possible we are studying the incidence and type of influenza outbreaks as they may occur. We have had conferences with representatives of the Surgeon General's office of the United States Public Health Service. Further, the Public Health Service has assured us of their intensive surveillance program; therefore, as soon as the Public Health Service has information of influenza outbreaks that have been confirmed as such by laboratory tests, all State Health Officers will be notified immediately.

"If there should be any changes in the influenza picture to indicate the probability of a specific strain of an influenza widespread outbreak in the Washington area, this Committee will promptly make appropriate additional recommendations for the District of Columbia."

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Coöperative Venture Proposed

There was a time when the Medical Society was largely responsible for keeping the practicing physician abreast of medical advances. Medical schools had little to offer him in the way of postgraduate education. Hospitals did contribute in a measure to his enlightenment but not to the extent they do today.

That was the situation in Washington prior to World War II, where for nearly a century Wednesday evenings had been religiously set aside by physicians for meetings at the Medical Society. As will be shown, many factors were responsible for the abandonment of these meetings, not the least being the changes wrought by the War.

First of all, Washington medical schools became actively interested in the education of practicing physicians shortly after hostilities ceased. They offered lecture courses with the best talent in the country. Hospitals, too, entered the field with far more ambitious programs than previously, which physicians on their staffs were required to attend. The urgent need for doctors who had been in the armed forces to reëstablish themselves in private practice as soon as possible was also a factor in the change which was taking place at the Medical Society.

It was during this postwar period then that the present pattern of postgraduate education was taking shape. Frustrated in its attempt to revive weekly meetings in the face of changed conditions, the Medical Society nevertheless remains an important factor in the education of the practicing physician. The ANNUAL SCIENTIFIC ASSEMBLY, the MIDWINTER SEMINAR, and the MEDICAL ANNALS are successful media in keeping him abreast of scientific progress. However, the Medical Society building is now being used more and more by sections in the various specialties, which flourished after the War, special medical societies, and various lay health organizations and not by the Society itself as in former days. Weekly, or even monthly, meetings of the Society in its handsome auditorium are pretty much a thing of the past. Many members find this regrettable because it once was the central gathering place for most physicians in the District. To these older doctors, nostalgically recalling other days, weekly programs should somehow be revived. It is only too apparent to those who are familiar with existing conditions that this is not possible.

Recently, at a luncheon given by the President, Dr. James W. Watts, your Observer was seated next to the dean of a medical school and some thoughts on the subject of these comments were exchanged. They were as follows:

The only possibility of the Society's sponsoring a postgraduate program remotely similar to that of the past, with the auditorium again in use, would be to enter into a coöperative arrangement with the three medical schools. It has been reported that medical schools which offer postgraduate courses for practicing physicians have had their difficulties with attendance. Incidentally, this has been equally true of medical institutions offering scientific programs, except for hospitals where attendance of regular staff members is mandatory. It seems, therefore, that efforts should be made first of all to integrate the educational efforts of the medical schools and the Society in this area. A coöperative venture in which their educational programs would be coördinated, it would appear, holds real promise. It is to be hoped that if this is found feasible the Medical Society auditorium will again become the gathering place for physicians seeking scientific knowledge as it has been in the past.

The response to this proposal was most encouraging. The suggestions still must be submitted to the deans of the three medical schools and to the Society's Program Committee for their reactions. It is naturally your Observer's hope that his proposal will be favorably considered and that a far more effective educational program can be offered physicians in practice. Such a program would have the effect of avoiding duplication in subject matter, preventing conflict in dates, and assuring more carefully prepared and integrated presentations.

There, of course, remain the educational efforts of the medical institutions, including hospitals, to be considered. But that is another problem which should receive attention when the feasibility of the above proposal has been demonstrated.

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In Recognition of Distinguished Service

Most of the people we know conscientiously carry out their daily assignments without any "fuss and feathers," there being little about them that is spectacular. So it is perhaps natural that we take our close associates pretty much for granted. It seldom occurs to us to say a word of encouragement or praise. Before we know it, years have passed and so have our friends.

Over the years your Observer has endeavored in a modest way to direct attention to physicians in Washington who are still making important contributions to their profession and the community. It is easy to write a glowing obituary, but an honest and favorable appraisal, while the individual is still around to appreciate it, is quite another matter. Although there is nothing original about this observation, it is, nevertheless, only too true.

The subject of this appraisal is Dr. Herbert P. Ramsey, who relinquishes his duties as Chairman of the Medical Society's Executive Board on January 1, 1959. For the first time in 25 years he will not hold an important office in the Society. He insists he has earned a "sabbatical leave," and your Observer heartily agrees. This does not mean that the Society can afford to dispense with his services, for it is hoped that before long he will return with more zest and vigor for other assignments in the organization he has served for so many years.

Dr. Ramsey's first assignment in the Society was that of Chairman of the Committee on Public Information in 1934. Dr. A. B. Bennett was then President. As Dr. Bennett discovered, he made no mistake in appointing Dr. Ramsey. In fact, many members familiar with Dr. Ramsey's activities at that time consider him the peer of any chairman of the committee over which he presided so successfully. One of his associates during that period was Dr. Roy L. Sexton. Between them they developed a very popular radio program which ran for several years. In the course of his chairmanship, Dr. Ramsey made many friends in the newspaper and radio fields, and these friendships continue down to the present time.

Another contribution, and a very important one, not only to the welfare of the profession but to the community, was his participation in the organization of the Obstetrical Board, of which he was Chairman for 12 years (1937–1948). As members of the Society know, this Board reviews maternal deaths in the District, determining their cause, and endeavors, successfully, it should be said, to reduce them to a minimum.

He was, during this period, a member of the Executive Committee of the Society, which subsequently became the Executive Board. He was also a member of several other important committees, including the Committees on Medical Care and Maternal Welfare.

Dr. Ramsey became one of the Society's delegates to the American Medical Association in 1947, serving in this capacity for the following 6 years. It was at this time he became widely known throughout the country for his unusual abilities in organization affairs. One of the most lucid and effective speakers in the AMA's House of Delegates, he was often given important assignments which he discharged with distinction.

In recognition of his long, outstanding service, the Society elected him President-elect in 1952. His administration was marked by a number of innovations, some of which were subsequently implemented when he became a member of the Executive Board in 1954.

Dr. Ramsey has for many years been active in civic affairs. He gave outstanding leadership to the Washington Metropolitan Health Council, an organization comprising nearly all of the agencies in the area having an active interest in health. He was also one of the original members of the Board of Directors of the Central Admitting Bureau for Hospitals, now known as the Hospital Service Agency. He is still a member of the District Committee on Hill-Burton Funds.

These are only some of the highlights of a career which has been marked by tireless service in the interest of his fellow physicians and the community. Personally, he has demonstrated that he is a man of unquestionable integrity, deep loyalties, and sympathies. The latter, as many of his fellow physicians can testify, he has demonstrated on many occasions.

Most important to a man leading such a strenuous existence is a sense of humor. Dr. Ramsey does not take himself too seriously, which makes the pace he sets for himself possible. Still in full vigor, Dr. Ramsey should have many years in which to make further contributions, which, if the opportunity offers, one can be sure he will.

Medicine a High Calling?

Few physicians in recent times have been the center of such violent controversy as Professor Ricardo Galeazzi-Lisi, personal physician to the late Pope Pius XII. The storm which broke over the Doctor's head had been brewing for a long time. However, the immediate cause was a series of articles supposedly based on a daily record written by the Doctor during the Pope's final illness. The articles, it was charged, went into minute detail, "embellished by literary touches for which the professor is noted and illustrated profusely with a series of photographs taken in the sickroom by Dr. Galeazzi-Lisi himself." Reportedly, they were sold to two Italian newspapers and the *London Sunday Pictorial* for a considerable amount of money.

The Doctor denied receiving money for his "reportorial services," but, according to the European correspondent of *The Evening Star*, Crosby S. Noyes, his denial was challenged by an Italian political weekly, *Lo Specchio*, which reported in the front page story "that the Doctor's diary had been offered to it by a press agency on October 16 for 1.5 million lira (about $2,500)." When *Lo Specchio* turned down the articles as "unprintable," two other newspapers reportedly bought them. However, as Mr. Noyes reports, one of them decided against publication. The other published an expurgated version because the diary had been sold "for a very high price to other large European and American dailies."

In the meantime the public reaction against Dr. Galeazzi-Lisi was vehement. One newspaper, *Il Giorno*, put it this way: "He has betrayed the world, the Pope, the medical profession, and the moral code of physicians." The Rome Medical Association hastily launched an investigation of the Doctor's professional conduct.

At the height of the controversy, CBS's able news analyst, Eric Sevareid, in a Nationwide broadcast observed:

"Death has its dignity because it has its certainty and is therefore not a sorrow in itself. Its manner or circumstance is a different matter. The true sadness in the death of Pope Pius XII is only now apparent; his personal physician had kept a minute-by-minute log of the Pope's physical decline. He took photographs as the mortal body yielded its life, and all this the physician sold to the popular press in Italy and in other countries. He has now been obliged to resign his Vatican position. The Italian Government is now considering if the existing law will allow his prosecution for crime.

"This is an incredible story and yet, in a different sense, it does not surprise. In a sense, something like this was going to happen, somewhere, soon, for there is a slow-working poison in the veins of many societies in this middle period of this 20th Century. It is not creeping socialism or creeping capitalism or any other collective 'ism.' It is creeping personal corruption and the peculiar nature of this corruption is that it slowly destroys the sense of corruption. . . .

"Perhaps this Italian doctor has done us all a service without meaning it or knowing it. Standards may be chipped away piece by piece and we do not realize what is going on. Only when one is suddenly blasted by a loud noise do we pay true attention and inspect the inner ramparts of the fortress—the walls known as values.

"What is the true source of the disintegration? This observer has no certain idea. It can be argued that money is not the root of all evil; poverty, perhaps, has even deeper roots in poison soil. But a good case could be made that in our time easy money is a source. . . ."

Have medical standards been "chipped away" to the extent that Mr. Sevareid suggests is true of society in general? Have physicians succumbed to the "easy money" philosophy? Is medicine today the high calling which it is proclaimed to be?

There are undoubtedly many physicians who, in common with other thoughtful citizens, regret the materialism of our age. But they would be less than human if they, too, did not seek the comforts and security which are the rewards of success. It is only when these become an end in themselves that the physician discredits himself and his profession and forfeits public confidence. There is no justification for exorbitant financial gain at the expense of people's miseries.

It has been estimated that 3 to 5 per cent of physicians care little for the idealism of their profession where financial relationships with patients are concerned. Whether medical societies wish to or not, this minority cannot be ignored. If medicine is to remain free, they must be effectively curbed by the societies to which they belong.

Without wishing to minimize the threat of this group to medicine, it would be a great injustice to place emphasis on their misdeeds to the exclusion of the exemplary conduct of the majority of the profession. In far-flung places today doctors labor sacrificially on behalf of the sick. Few of them are as great humanitarian geniuses as Albert Schweitzer or Gordon Seagrave, but they bring to suffering people everywhere assurance that the highest ideals activate the medical profession.

Recently a member of the Society, Dr. Peter Comanduras, became the Secretary General of a new organization known as MEDICO whose object is to provide medical care in the parts of the world where it is not now available. Dr. Comanduras says its object is "People-to-People Medicine" which will "by-pass governments, by-pass politics . . . by-pass barriers of various kinds of race, caste and creed, and meet people as human beings."

"At the very heart of physicians," Dr. Comanduras says, "there is a core of altruism . . . a nucleus in which he wants to serve humanity. This is one way of actually being able to give himself the idea that he is going out to do something for people . . . at no profit to himself, and certainly not to make any money, but to feel that this is his contribution, his own personal, individual contribution to people who need it all over the world."[1]

Obviously, not all physicians can go to distant places in such humanitarian causes. The fact is that they have equally great opportunities to serve where they are, and thousands of them, in cities, towns and villages throughout our land, are doing so. This vast army of high-minded physicians are not primarily concerned with monetary gain but, rather, have placed their financial needs in proper perspective. They are members of the profession who are truly engaged in a high calling where the patient's welfare, as it always should, comes first.

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Richardson and M.E. The pocket-sized *Medical Economics* is, without doubt, the most popular nonscientific publication which comes to the physician's desk. As its name implies, it specializes in timely and informative articles on medical socioeconomic subjects, many dealing with practical problems incident to the conduct of a physician's practice, written in a very readable and interesting manner.

Every physician receives M.E. free, the publication relying for its existence on a large volume of advertising. Some years ago the American Medical Association was highly critical of the quality of some of its advertising. An inquiry at M.E.'s office recently brought the response that there is now little basis for such criticism.

Editorial director of the publication for a number of years was a physician, Dr. H. Sheridan Baketel, who served in this capacity from 1929 until his death in 1955. The overall direction of M.E.'s affairs, however, has been in the hands of Harvard-educated William Allen (Bill) Richardson since the mid-1930's.

Your Observer's initial contact with M.E. was at his first meeting of the American Medical Association in Detroit in 1930. He recalls that the publisher gave a dinner for executive secretaries in attendance. When the group was photographed some refused to be included because they were reluctant to incur the displeasure of a few AMA officials who were especially hostile to the publication, referring to it as a "throw-away" and not worthy of a doctor's time.

A few years later your Observer made the acquaintance of Mr. Richardson, a shy, modest man, who was only too conscious that his publication was not in favor with organized medicine.

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[1] Doctors out beyond. Courier, October 1958, p. 11.

Mr. Richardson accepted philosophically the embarrassment and criticism to which he was subjected, apparently confident that the situation would improve.

Times have changed a great deal since that time. M.E. has for several years been gaining in popularity with the rank and file of the profession. It has also won acceptance by AMA officials, who are glad to coöperate by providing information for the articles which frequently appear in the publication.

Mr. Richardson is now not only highly regarded by physicians, who know him as a capable journalist, but his views on medical matters of a general nature are sought by medical societies, several of whom he has addressed. This must give him a great deal of satisfaction, for, after all, M.E. is what Mr. Richardson has made it, and that is very good indeed. He has been wise to surround himself with an outstanding editorial staff, which explains the superior quality of the material which appears in his publication.

Congratulations, Bill!

T. W.

DISABILITY INSURANCE FOR VETERANS

Opportunity for veterans holding National Service Life Insurance to buy a low-cost new type of total disability income rider for their GI policies is now offered by the Veterans Administration.

Under the new-type rider now on sale, policyholders who become totally disabled from any cause before age 60 and while their rider is in effect will receive an income of $10 per month for each $1,000 face amount of their GI policies. Previous maximum was $5 per month.

Payments under the rider begin after the total disability has existed for 6 consecutive months and continue for the duration of the disability, regardless of its length.

No payment may be made for disabilities incurred after age 60, and no premium charge is made for this benefit after that date.

If the veteran is in good health and under age 60, the rider may be attached to any NSLI policy, except for a limited number sold to service-disabled veterans since April, 1951. Although a physical examination is required, policyholders may be examined by local physicians, provided VA medical application forms are used.

The premium cost of the rider varies according to the policyholder's age, type of policy, and its face amount.

Those veterans who now have the old rider can get the new one at little extra cost following a physical examination.

For additional information and application forms, call or visit the Central Office Contact Division of the Veterans Administration, Vermont Avenue, between H and Eye Streets, N. W., Washington, D. C.

MEMBERSHIP

The following applicants for membership will be voted on at the meeting of the Executive Board, January 26, 1959.

For Active Membership

Henry DeCosta Bell, Howard University—1954
Irving L. Berman, Middlesex University (Waltham, Mass.)—1940
Leo P. Hennigan, Georgetown University—1950
James A. Ryan, Georgetown University—1953
Robert T. Scanlon, Georgetown University—1954

For Associate Membership

John A. Dattoli, Georgetown University—1946
Jean Omer Feys, Catholic University of Louvain (Belgium)—1954
Ben S. Fine, University of Toronto Faculty of Medicine (Canada)—1953
Bruno Kolega, University of Rome (Italy)—1951
Larry McGowan, University of Illinois—1954
William C. Swatek, College of Medical Evangelists—1949

FACTS PERTAINING TO THE MEDICAL AND HOSPITAL CARE PROGRAM OF THE UMWA WELFARE AND RETIREMENT FUND*

WARREN F. DRAPER, M.D.

Executive Medical Officer, United Mine Workers Welfare & Retirement Fund

Trust Fund hospital and medical care benefits are voluntary grants from the Fund, which is a charitable trust, administered by 3 trustees, entirely apart from the Union.

Full and final authority rests with the trustees to revise, suspend, or terminate these benefits at any time.

Included in the benefits originally authorized by the Trust Fund, and continuing unchanged, are medical and hospital services which are rendered in accordance with arrangements made by the Medical, Health and Hospital Service of the Fund with individual physicians and hospitals.

It is the obligation of the Trust Fund to insure that the medical and hospital services for which it pays are of the highest quality obtainable, and that the price is reasonable and just according to professional standards.

The Trust Fund pays the full cost of all the benefits that it provides.

Medical and hospital care benefits are extended to eligible beneficiaries irrespective of age, or whether they are retired, unemployed, or chronically ill. They include payment of the cost of hospitalization and medical care for the time that is medically necessary for the patient to remain in the hospital.

It was our purpose from the beginning to insure the understanding and coöperation of organized medicine at the national, state, and local levels. As all that was desired was the highest quality of medical and hospital services obtainable at a cost that was reasonable and just, it seemed that an unparalleled opportunity was afforded for the development of a pattern of medical care that would be in the best interests of the patient, the medical profession, and the agency which provided the benefits and paid the bills. It was even our hope that the outcome of these joint efforts might serve as a guide that other agencies entering the field of medical care could follow to advantage.

Meetings were arranged between representatives of the Fund and organized medicine at the national, state, and county levels, and agreement on 2 general principles was reached:

1. It was the right of the Trust Fund to demand and receive the best quality of medical care obtainable for its beneficiaries in return for payment which the medical profession itself considered reasonable and just.

2. It was the duty of organized medicine to insure that physicians who desired to be paid by the Fund for authorized services to its beneficiaries should render services of high quality within their capabilities, and utilize the services of specialists, at Fund expense, when required in the best interests of the patient.

The Fund informed the representatives of organized medicine at the national, state, and county levels that it would undertake to make mutually satisfactory arrangements with any reputable physician who desired to serve its beneficiaries, and that the beneficiaries might apply to any physician with whom such arrangements had been made. The beneficiary was instructed to seek treatment from his family physician first. The physician was asked to refer the patient to an appropriate specialist, with whom similar arrangements had been made, whenever he felt that this would be in the best interest of the patient.

In the years immediately following, several important actions took place:

1. The House of Delegates of the American Medical Association approved the appointment of "advisory committees" by medical societies in the coal-mining states to consider matters pertaining to the medical program of the Fund and to coöperate in working out a mutually satisfactory course of procedure.

2. At the request of the Executive Officer of the Fund, an American Medical Association committee was delegated to visit some of the mining areas in Kentucky, Tennessee, and West Virginia, with representatives of the respective state and county medical societies, to survey the conditions of medical practice in these areas, and submit a report of their findings with recommendations.

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* Reprinted with permission from Pennsylvania M.J., 1958, **61**, 1185.

3. The American Medical Association sponsored a series of conferences between medical society representatives of those and other interested states and the Medical Service of the Fund "to review the recommendations of the survey team and take such steps or actions as are necessary to improve the quality of medical care in those areas." Such conferences were held in 1952, 1953, 1954, and 1956. Reports of the full proceedings were reprinted from *The Journal of the American Medical Association.* The conferences established better understanding and friendly relations between the participants, but resulted in few, if any, important specific actions following.

4. At the request of the medical societies of the states of Colorado and Utah, and of the Fund, an American Medical Association team conducted a similar survey in each of those states. A satisfactory solution of the problems existing in Utah was found, but the team was not successful in eliminating the source of the trouble in Colorado.

The relationships between organized medicine and the Medical Service of the Fund were progressing so well that *The Journal of the American Medical Association* published a commendatory editorial in its December 11, 1954 number concluding as follows:

"Labor leaders, labor union medical administrators, and physicians everywhere can learn valuable lessons from the way in which organized medicine and the United Mine Workers have sat down together to iron out a host of difficult problems."

As experience and data accumulated, however, it was apparent that in many places surgical diagnoses and operative surgery for Fund beneficiaries were inferior in quality, and the amount of surgery was far in excess of that performed on non-beneficiaries. This was confirmed by qualified consultants who saw our patients at medical centers to which they were transferred, or reviewed the records at our request. The rates of hospital admission and length of stay of our beneficiaries were also far beyond the bounds of any experience in the United States.

We discussed these facts in detail and at length with individual physicians, committees of state and county medical societies, hospital staffs, and other groups and individuals. Notwithstanding all our efforts, however, the conditions continued practically unchanged. While many doctors were cognizant of the situation and agreed that remedial measures were essential, there were few, if any, who were willing to undertake to make them. It was finally apparent that if the abuses, which all knew existed, were to be curbed, the Fund would have to take the action necessary to do it.

In consequence, the Fund adopted a provision that as far as practical, and except in emergency cases, all beneficiary patients would be seen in consultation with an appropriate specialist in private practice to decide upon the necessity of hospitalization before admission at Fund expense. The cost of consultation would be borne by the Fund. This requirement resulted in a reduction of from 30 to 50 per cent in the rates of surgical operations and hospital admission over wide areas, and the advantages to the patient of specialist consultation were found to be considerable. The procedure was bitterly opposed, however, by the medical societies of several states, including Pennsylvania, and was largely discontinued in the face of disapproval by resolution of the American Medical Association in 1955.

Immediately thereafter the Committee on Medical Economics of the Pennsylvania State Medical Society and representatives of the Medical Service of the Fund engaged in a series of friendly and constructive talks designed to establish better working relationships. After much concentrated effort, an Agreement on working principles was finally reached and signed by the Board of Trustees of the Pennsylvania State Medical Society and the Medical Service of the Fund. It became effective January 1, 1956, and was published in full in *The Journal of the American Medical Association*, issue of May 12, 1956, with a commendatory editorial from which the following paragraph is quoted:

"It is the culmination of months of consultation and conference, and the efforts of the Medical Society and the results of these efforts can be commended to the attention and study of all who wish to improve relations between medicine and employer or employee groups."

On October 23, 1956, without notice of any kind, the Agreement was declared "null and void, terminated and ended" by action of the House of Delegates of The Medical Society of the State of Pennsylvania. No arguments were presented and no reasons were stated. It was thus that the constructive measures which the Committee on Medical Economics, the Board of Trustees, and the Medical Service of the Fund had worked so long and hard to bring about, which the editorial in *The Journal of the American Medical Association* had commended so highly, and which was attracting the favorable attention of several other states, went down in ignominious defeat.

As the other party to the Agreement, I have yet to be informed of the provisions which were so objectionable as to warrant the ruthless action taken.

During the period that the Agreement was in effect (January to October, 1956), it was scrupulously observed by the representatives of the Fund, who did everything within their power to make it work. It became increasingly evident, however, that some of the members of the county societies were not in tune with the spirit of the Agreement and were unwilling to abide by its terms. In consequence matters of controversy, directly or indirectly related to the medical program of the Fund, were not considered in accordance with the Liaison Procedure set forth in the Agreement. Only in this way could proper consideration at the state or national level be assured, leading to recommendations based upon full knowledge and understanding of all the facts.

Among the matters of discord may be mentioned the following:

1. Opposition to the Fund was voiced on the ground that it established diagnostic or treatment centers without consultation with the county medical society and regardless of its protests.

The Fund does not establish treatment centers nor clinics of any description outside of its 10 Memorial Hospitals in Kentucky, West Virginia, and Virginia. Its hospital and medical care benefits are limited strictly to payment for hospitalization, medical care in the hospital, specialists' services, and certain drugs used under a physician's direction in the home.

Complete information on the position of the Fund in regard to treatment centers or clinics was furnished to the chairman of the Committee on Medical Economics in a letter dated March 11, 1954. Complete information on the organization, operation, and facilities of the Community Health Center at Russellton, Pa., was also furnished to the committee and distributed widely. Similar information in regard to any other clinics to which the Fund makes payment for services to its beneficiaries is doubtless available for the asking.

2. Criticism has been made that the Fund failed to close one of these centers after agreement with a representative of the State Society to do so.

It is obvious that the Fund could not open or close facilities that it did not own or operate. A report of the Committee on Medical Economics, published in *The Pennsylvania Medical Journal*, September, 1955, contains the following statement: "It was the feeling of the committee that, in effect, The Parnassus Branch has been abolished per se and that the only remaining problem is a matter of politics between hospitals in that area."

3. Accusations that the Fund attempts to force hospitals to accept, as staff members, physicians whom the medical staffs of the hospitals do not wish to accept; failure to accept them has resulted in discontinuation of payment for the care of beneficiaries in those hospitals.

Discontinuation of payment for services to Fund beneficiaries in those hospitals was due to the fact that the services were inadequate and that Fund payment for the type of service rendered was to a considerable extent a waste of money. The hospitals refused to accept as staff members additional physicians whose services were needed, whose professional qualifications were above question, who served as physicians to the beneficiaries, and whom the beneficiaries wanted to care for them in the hospital.

Detailed information concerning the unsatisfactory services at these hospitals was sent to the hospitals, the respective county medical societies, and copies to The Medical Society of the State of Pennsylvania, but no remedial action resulted. Here again is an instance in which full knowledge and consideration of all the documented facts at the state or national level would doubtless have led the way to proper settlement.

4. Objection to other than fee-for-service method of payment.

This subject was discussed at length in my paper presented at the annual meeting of the Society in Pittsburgh on September 21, 1955, and published in *The Pennsylvania Medical Journal* in December, 1955. The conclusion was as follows:

"It is my understanding that the Judicial Council of the American Medical Association is studying methods of payment for physicians' services and in due time will render a decision as to what is proper and what is not. Until such decision is reached, we feel that there is no justification for objecting to methods of payment when used by the Fund and not objecting to the same methods of payment when used by other agencies."

Because of differences relating to the medical program encountered in Illinois and Colorado, the Executive Medical Officer of the Fund, on January 9, 1957, submitted a letter to the chairman of the American Medical Association Committee on Medical Care for Industrial Workers outlining the situation and concluding as follows:

"As matters now stand, problems that might have been resolved, through calm and judicial consideration by a body of organized medicine specifically designated for the purpose, bid fair to receive widespread undesirable publicity, cause rifts and antagonism among various elements of the medical profession and its individual members, result in serious financial embarrassment to hospitals, and bring inconvenience and hardship to hundreds of patients.

"As the House of Delegates of the American Medical Association has provided the means for resolving controversies that may arise between state medical societies and the medical program of the Fund, it is my earnest recommendation that the Committee on Medical Care for Industrial Workers offer its good offices to the Illinois State Medical Society to the end that medical practices and relationships which have given rise to the present unfortunate situation may be fully understood and evaluated, and that constructive measures for resolving the difficulties may be taken to avert the harmful consequences that may otherwise ensue. I assure you of my full coöperation in making all the facts available."

Representatives of the state medical societies of Pennsylvania, Illinois, and Colorado were invited to meet with the committee in March, 1957, to discuss points of disagreement with the Fund. The meeting ended with requests by the medical societies and the Executive Medical Officer of the Fund that the committee endeavor to work out relationships and procedures that would be reasonable and just, and which organized medicine and the Medical Service of the Fund would accept and follow.

The outcome was the suggested Guides to Relationships Between State and County Medical Societies and the UMWA Welfare and Retirement Fund. These included the stipulation that "Every physician licensed by the state to practice medicine and surgery should be assumed at the outset to be competent in the field in which he claims to be unless considered otherwise by his peers." This is precisely the policy which the Fund originally followed and which we know from 9 years of experience would be disastrous to our program and could not be accepted.

The only practical course remaining was to utilize only those physicians whose services were necessary and essential to provide the medical benefits which the Fund has authorized. The results of this procedure in Pennsylvania, during the period from September, 1957, through June, 1958, are as follows:

	Decrease Per cent
Hospital admissions	11.6
Hospital days	12.6
Length of stay per case	4.5
Surgical operations	14.5
Cost per beneficiary	2.9
Total costs	7.5

In effecting these decreases, no beneficiary has been deprived of reasonable opportunity of receiving authorized medical and hospital benefits. The quality of medical care has not been lowered but, on the contrary, is steadily improving.

I believe I am correct in my understanding that in bygone days, when things were simple, organized medicine insisted that it was the right of any citizen to choose any physician for whose services he was willing to pay. As far as I know, that right is just as inviolate today as in the past. In the process of evolution, various groups of one kind or another began to offer direct medical services which the recipient could accept or reject as he saw fit. The same principle was followed; namely, the one who paid for the service had choice of the physicians he wished to employ. Insurance companies, railroad companies, industrial concerns, governmental agencies, and many others have followed this principle for years. No protest was ever raised until the Fund decided to follow a similar course. It is futile, it seems to me, to attempt to deny to any agency which pays for services to the laboring man the same choice that is exercised by others. I believe the entire country would applaud and uphold a policy position of organized medicine that choice of physician is not only the inherent right of the individual but also of an agency which offers him medical benefits for which it pays. This is already generally in effect. It is the unjustifiable exceptions that are causing most of the trouble.

News and Personals

MEETINGS

The American Association for the Advancement of Science will convene for its 125th meeting at the Sheraton-Park Hotel in Washington, D. C., December 26–31. The November issue of the Medical Annals included the names of speakers who will participate in the Symposium on Congenital Heart Disease, December 29 and 30.

A two-day Symposium on Hallucinations is scheduled for Saturday and Sunday, December 27 and 28, under the joint sponsorship of the Committee on Research of the American Psychiatric Association and the American Association for the Advancement of Science. Sessions will be held in the Burgundy Room of the Sheraton-Park Hotel, beginning at 9 a.m. both days. Inquiries regarding the program should be addressed to the director of the Symposium, Dr. Louis J. West, Professor and Head of the Department of Psychiatry, Neurology and Behavioral Sciences, University of Oklahoma School of Medicine, Oklahoma City 4, Okla. Medical institutions throughout the United states will be represented by speakers, including Harvard, Princeton, Duke, Columbia, Johns Hopkins, Tulane, the National Institute of Mental Health and the National Institute of Neurological Diseases and Blindness, and many others.

The Washington Psychiatric Society and the Medical Society of St. Elizabeths Hospital will hold a combined meeting, January 23, at the Hospital. The program will be a presentation of joint research by St. Elizabeths Hospital and the National Institute of Mental Health. Speakers from both institutions, to be announced later, will participate. The meeting will open at 8:30 p. m.

GENERAL NEWS

The Executive Board of the Medical Society of the District of Columbia held its regular meeting on November 3, 1958, with the Chairman, Dr. Herbert P. Ramsey, presiding. The following members of the Society were nominated to the Board of Trustees of Medical Service to serve for a 3-year term: Dr. Henry D. Ecker, to succeed himself; Dr. Frank S. Pellegrini, to succeed Dr. Robert Perkins; and Dr. Leonard T. Peterson, to succeed Dr. Donald Stubbs.

The Board selected Dr. O. Hugh Fulcher as appointee to the Board of Trustees of Group Hospitalization, Inc. for a term of 5 years. He will succeed Dr. Richard H. Todd, whose term expires, March 27, 1959.

The following appointments submitted by President Watts were approved by the Board:

Dr. Richard H. Todd, to represent the Society on the Health and Welfare Council of the National Capital Area for a term of 5 years.

Dr. Andrew G. Prandoni, to succeed Dr. Hill Carter on the Council on Rehabilitation.

Dr. Kenneth L. McCoy, an additional member to the Committee on Blood.

Dr. John L. Parks, Dean of George Washington University School of Medicine, submitted the name of Dr. Alvin E. Parrish, Clinical Instructor in Medicine, to serve as Consulting Editor to the Medical Annals, replacing Dr. Walter H. Gerwig, Jr., who is now practicing in Leonardtown, Md. The Board approved the choice.

At the request of Dr. W. Le Roy Dunn, President-elect, Dr. Watts submitted for confirmation the appointment of Dr. Marcel J. Foret as General Chairman of the 28th ANNUAL SCIENTIFIC ASSEMBLY and the following committee chairmen to work with him:

Program: Dr. Philip H. Philbin
Scientific Exhibits: Dr. Raymond A. Osbourn
Motion Pictures: Dr. William R. Strong
Attendance: Dr. Wesley M. Oler
Social Affairs: Dr. Victor R. Alfaro, Jr.
Finance: Dr. Charles P. Ryland

Dr. Dunn selected Dr. W. Dabney Jarman to serve as Chairman of the Program Committee for 1959. These appointments were approved by the Board.

The central headquarters of the American Psychiatric Association combined open house with official dedication of its new building, October 31. The Honorable Arthur S. Flemming, Secretary of Health, Education, and Welfare, gave the dedicatory address.

APA was founded in 1844 by 13 physicians under the title, Association of Medical Superintendents of American Institutions for the Insane. In 1892, by which time it had about 250 members, the name was changed to the American Medico-Psychological Association, and in 1921 it assumed its present title.

The new, $300,000 headquarters, a converted town house, was made possible by voluntary contributions from its members. It houses a staff of 35. Among other activities, APA provides a wide range of information and consultation services to state governments on mental health and hospital problems; inspects, rates, and sets standards for mental hospitals; and publishes the *American Journal of Psychiatry*, the magazine, *Mental Hospitals*, and many other professional books, reports and proceedings.

Dr. Mathew Ross, the Medical Director, took office in September, succeeding Dr. Daniel Blain.

The District of Columbia Division of the American Cancer Society held its annual meeting in the Medical Society's building, October 27. Mr. Wylie W. Barrow, Treasurer of the Washington Gas Light Company, was elected President, succeeding Dr. Calvin T. Klopp, who has served as president for 3 years.

Physicians elected to the Board of Trustees were Drs. C. Willard Camalier, John P. Haberlin, Jack E. White, and Theodore Winship. Among those reëlected to the Board were Drs. Murray M. Copeland, William P. Herbst, Harry H. Kerr, Calvin T. Klopp, and C. Roger Kurtz.

The principal address at the meeting was given by Dr. John R. Heller, Jr., Director of the National Cancer Institute, who spoke on "International Aspects of Cancer Control."

The American Society of Internal Medicine has announced the appointment of its first full-time Executive Secretary, who will begin his new duties on January 1, 1959. He is Mr. Robert L. Richards, of Harrisburg, Pa., who has been serving as Assistant Executive Director of the Medical Society of the State of Pennsylvania since December 1956.

The Society was organized in Boston in 1957 and has a membership of 5,000. The offices are located in San Francisco at 350 Post Street.

Dr. C. K. Fraser, Chairman of the Medical Society's **Obstetrical Board,** advises that any member of the Society is welcome at meetings of the Board. To be placed on the mailing list for notices of meetings, please telephone Mrs. Evelyn DeBray in the Society's Executive Offices (District 7-3111). The Board meets on call, the third Monday of the month, at 8 p.m. in the Medical Society's auditorium.

The Illinois State Medical Society is preparing an exhibit centered on the **role of physicians in the development of the automobile** in the United States at the turn of the century. To help illustrate this exhibit the Society will appreciate the loan of old photographs showing physicians at the wheels of cars of 1900–1910 vintage. Scenes showing difficulties on the road, or poor highway conditions, are especially desired. Enlargements will be made of these photographs and the originals returned undamaged. Photographs should be accompanied by a memo giving the name and town of the physician, whether living or deceased, and the make and year of the automobile. They should be sent to Mr. John A. Mirt, Illinois State Medical Society, 185 North Wabash Avenue, Chicago 1, Illinois.

CALENDAR OF SPEAKERS

The following members of the Medical Society of the District of Columbia have addressed lay groups during the past several weeks. The Society maintains a Speakers Bureau, sponsored by the Committee on Public Information, through which requests for speakers for lay groups, including radio programs, can be filled.

Date	*Speaker*	*Subjec' or Title*	*Organization*
October 16	Dr. Josephine J. Buchanan	Rehabilitation of the Long-term Patient and Prevention of Long-term Disability	Workshop for Practical Nurses
October 16	Dr. Julius Schreiber	Emotional Needs of Children	Rock Spring Coöperative School, Arlington, Va.
October 21	Dr. Ludwig G. Lederer	Medical Aspects of Jet Passenger Transportation	National Chief Stewardesses Association
October 27	Dr. Henry P. Laughlin	Causes and Symptoms of Nervousness	Health Series, Montgomery County (Md.) Department of Public Libraries
October 27	Dr. Julius Schreiber	Dealing with Family Emotional Problems	Temple Israel Sisterhood, Silver Spring, Md.
October 29	Dr. Peter D. Comanduras	MEDICO—Medical International Coöperation	Men's Fellowship, Ryland Methodist Church
November 4	Dr. Julius Schreiber	Family Living in the Atomic Age	Annual Meeting, Jewish Social Service Agencies of Washington, D.C.
November 11	Dr. George W. Sprehn	Frontiers in Mental Health	Woman's Club of Bethesda, Md.
November 15	Dr. Charles D. Shields	Rehabilitation of Hemiplegic Patients with Sensory Defects	Annual Meeting, United Cerebral Palsy Association
November 25	Dr. Robert P. Odenwald	Problems of Teenagers	Auxiliary No. 136, City of Hope

PERSONALS

Dr. George Maksim was appointed a member of the Public Health Advisory Council by the D. C. Commissioners, effective September 15. He will fill the unexpired term of Dr. Montgomery Blair, Jr., resigned, whose term will expire September 14, 1959. Dr. Maksim was appointed chairman of a committee which will study suggestions for improving emergency medical care for the indigents of the District of Columbia.

Dr. W. Montague Cobb was reappointed a member of the Council for a term of 3 years, beginning September 15. Dr. C. V. Rault, Dean of Georgetown Dental School, was elected Chairman of the Council, succeeding Dr. Cobb. Mrs. Edward B. Morris was chosen Vice Chairman, succeeding Dr. Blair.

Dr. Oscar B. Hunter, Jr., Director of the Hunter Memorial Laboratory, was elected to the Board of Governors of the College of American Pathologists at its recent meeting in Chicago, November 1–5, to serve for a 3-year period.

Dr. Reginald S. Laurie has been appointed to the District Commissioners' Youth Council for a 1-year term beginning November 20. Dr. Laurie is head of psychiatry at Children's Hospital. Among those reappointed to the Council were **Dr. Addison M. Duval and Dr. C. Herbert Marshall.**

Dr. Walter A. Bloedorn was reëlected President of the Gorgas Memorial Institute of Tropical and Preventive Medicine at its annual meeting, October 22.

Rear Admiral Bartholomew W. Hogan, Surgeon General of the Navy, was awarded the Peruvian Cross of Merit by the President of the Republic of Peru and the Peruvian Navy. The presentation was made in Washington, D. C., at the Embassy of Peru, October 8, in connection with the celebration of Peruvian Navy Day. The award recognized the assistance given the Peruvian Naval Medical Department by the U. S. Navy Medical Department.

Dr. John A. Washington is the newly elected State Chairman of the American Academy of Pediatrics, succeeding Dr. William F. Burdick. Dr. Washington will represent the Washington area pediatricians at national and regional meetings of the Academy.

Dr. Marcus H. Burton, of the firm of dental surgeons, Mead, Lynch, Burton and Mead, was elected President of the Kiwanis Club of Washington. Dr. Burton is an Associate member of the District Medical Society.

Dr. W. Proctor Harvey, Associate Professor of Medicine, Georgetown University School of Medicine, served as Visiting Professor in Cardiology *pro tem*, September 17–18, at the Emory University School of Medicine in Atlanta, Georgia.

Dr. Bruce I. Shnider has been elected to membership in both the American Federation of Clinical Research and the Association of American Medical Colleges. He is Assistant Professor of Medicine at Georgetown University.

Dr. Isidore Lattman is one of the vice presidents of the Opera Society of Washington. He was reelected to this office at the annual meeting of the Society, November 6.

CORRESPONDENCE

WASHINGTON, D.C.
October 22, 1958

TO MR. WIPRUD:

Dr. Theodore Fong hit the nail on the head, so far as I am concerned, in the editorial in your September issue with his discussion "Reverence for the Aging." I was taught to respect seniors before I got out of short pants, and why not?

Civilization of the ages has rated that an indispensible tenet of an orderly society, and of decent relationship among ourselves. The antithesis is what underlies many of our problems, certainly problems of the juvenile, and, probably more than we realize, problems of the aged.

Dr. Fong has my proxy in his proclamation, "Respect should be taught in homes, schools and churches."

Sincerely,
FRANK W. KUEHL
Legal Advisor, American Medical Association

BOOKS RECEIVED

Acknowledgment is made of the following books which have recently been received. Selections will be made for more extensive review in the interest of our readers and as space permits. Physicians are urged to submit reviews of additional books which, in their opinion, merit comment.

The Doctor Business. RICHARD CARTER. Price, $4.00. Pp. 283. Garden City, N.Y.: Doubleday, 1958.

Clinical Obstetrics and Gynecology. A Quarterly Book Series. Vol. 1, No. 3. Symposium on Special Diagnostic Aids, edited by C. PAUL HODGKINSON, M.D. Symposium on Abnormal Uterine Bleeding, edited by JOHN I. BREWER, M.D. Price, $18.00 subscription for 4 consecutive numbers. Pp. 852. New York: Hoeber-Harper, September 1958.

The Care of the Geriatric Patient. Edited by E. V. COWDRY, PH.D., SC.D. (Hon.), Director of Wernse Cancer Research Laboratory, Washington University School of Medicine; formerly President of the Gerontological Society and of the Second International Gerontological Congress; Chairman of the Medical and Scientific Committee, American Society for the Aged, Inc. Price, $8.00. Pp. 438. St. Louis: Mosby, 1958.

What We Do Know About Heart Attacks. John W. Gofman, M.D., Professor of Medical Physics, University of California, Berkeley. Price, $3.50. Pp. 180. New York: Putnam, 1958.

Difficult Diagnosis. A Guide to the Interpretation of Obscure Illness. H. J. Roberts, M.D., Diplomate of the American Board of Internal Medicine; Fellow of the American College of Chest Physicians; Associate of the American College of Physicians; Staff, Good Samaritan Hospital and St. Mary's Hospital, West Palm Beach, Florida; Formerly, Research Fellow and Instructor in Medicine, Tufts University Medical School; Formerly, Research Fellow and Instructor in Medicine, Georgetown Medical School. Price, $19.00. Pp. 913, with 99 illustrations. Philadelphia: Saunders, 1958.

Spontaneous Internal Biliary Fistula—Karotkin

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74. Danzer, J. T.: Radiology, 1937, **28,** 88.
75. Tate, R. C., and Shaw, H.: Am. Surgeon, 1952, **18,** 443.
76. Jenkinson, D. L., and Lowry, H. M.: Am. J. Roentgenol., 1948, **60,** 658.
77. Slanger, A.: Rev. Gastroenterol., 1944, **11,** 409.
78. Minty, E. W.: Minnesota Med., 1945, **28,** 117.
79. Pomeranz, R., Grady, H. G., Peelen, M., and Magnes, M.: Radiology, 1944, **43,** 582.
80. Welch, J. S., Huizenga, K. A., and Roberts, S. E.: Proc. Staff Meet. Mayo Clin., 1957, **32,** 628.
81. Culver, G. J., and Kline, J. R.: Am. J. Digest. Dis., 1947, **14,** 162.

Pneumonia and Sickle-cell Anemia–Ferguson and Scott

(*Continued from page 640*)

with SCA may resolve very slowly and may lead to debilitation and prolonged hospitalization on antibiotic therapy alone. The addition of supportive therapy in the form of small multiple blood transfusions, oxygen and vitamins can ameliorate the morbidity and significantly enhance the recovery time.

BIBLIOGRAPHY

1. Wooding, C. H., Jr., and Scott, R. B.: Terramycin in treatment of pneumonias of childhood; report of 10 cases. J. Pediat., 1951, **38,** 423.
2. Scott, R. B., Ferguson, A. D., Jenkins, M. E., and Clark, H. M.: Studies in sickle-cell anemia. VIII. Further observations on clinical manifestations of sickle-cell anemia in children. A.M.A. Am. J. Dis. Child., 1955, **90,** 682.
3. Jenkins, M. E., Scott, R. B., and Ferguson, A. D.: Studies in sickle cell anemia. VII. Blood volume relationships and the use of a plasma extender in sickle cell disease in childhood: preliminary report. Pediatrics, 1956, **18,** 239.

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Book Reviews

Handbook of Medical Treatment. 6th ed. Edited by Milton J. Chatton, M.D., Sheldon Margen, M.A., M.D., and Henry Brainerd, M.D. Price, paper, $3.50. Pp. 569. Los Altos, Calif.: Lange, 1958.

The sixth edition of this widely read handbook of medical treatment represents a paramount task, considering the voluminous contributions to therapeutic literature of recent note. The purpose of the Handbook is to condense much of useful and accepted forms of medical management for quick reference for students and the busy practitioner. The index and general organization of the manual facilitates its use as a ready reference. The numerous agents often used for a specific disorder are advantageously presented in tabular form. This is well exemplified in the sections on dermatology and hematology.

The introductory paragraphs relating to etiology, pathogenesis, and differential diagnoses in each section are notably incomplete and inadequate and do not fall within the scope of the purpose of the text as a manual of therapeutics.

This popular handbook again fulfills the need of many for a concise and well edited reference of medical treatment.

Herbert L. Tanenbaum, M.D.

Dietary Prevention and Treatment of Heart Disease. John W. Gofman, Ph.D., M.D., Alex V. Nichols, Ph.D., and E. Virginia Dobbin. Price, $3.95. Pp. 256. New York: Putnam, 1958.

The book begins with a discussion of the nature of coronary artery disease, intended for both physician and layman, which is elementary for the informed physician and, in several respects, technical for the layman. The authors refer to the reduction of coronary flow due to arteriosclerosis but do not refer to atherosclerosis, which is used by many authorities to denote specifically the narrowing of coronary caliber due to lipid deposition. The authors closely relate intravascular clotting to arteriosclerosis and state that if arteriosclerotic narrowing did not occur, "clotting of the blood would become very rare." No reference is made to other factors affecting blood coagulability, such as temperature and lipid levels.

In referring to methods to detect coronary disease, a brief historical review is included, with comments on the technical difficulties in studies of blood lipids. The ultra centrifuge technic of analysis, using Svedberg's rotation units (S-f) to classify lipoprotein particles into one of four groups, is described. Excess and/or imbalance between these groups is correlated with incidence of clinical coronary disease. Diets are declared necessary to lower specifically a certain class of lipoproteins without varying other lipoprotein levels. A population group must be studied to determine coronary candidates selected by the blood sampling process. The authors make the statement that no other clinical technic will reveal patients who need dietary advice for prevention of coronary disease, without referring to the ballistocardiograph or electrocardiograph which may reveal early coronary insufficiency. The authors go on to advocate widespread blood sampling of all persons over 20 years of age to select those in need of dietary advice.

Saturated fats, so called hydrogenated or animal fats, elevate the Sf 0–12 and 10–20 lipoproteins while unsaturated vegetable oils do not affect these groups. Substitution of unsaturated fats permits Sf 0–12 and 10–20 lipoprotein levels to fall. While unsaturated fats contain no "beneficial agents," that is, lowering agents, the saturated fats contain a "noxious" component. The authors advise against mere addition of vegetable oils to the diet without animal fat restrictions.

A chapter is devoted to the effect of carbohydrate in the diet,which states that in certain individuals carbohydrates will cause rather marked elevation in the Sf 20–100 and Sf 100–400 lipoprotein particles. Correlation between overweight and arteriosclerotic Sf lipoproteins of all classes exists, especially between overweight and the 100–400 class. The authors stress that with weight reduction there is usually concomitant lowering of blood pressure, an important causative factor in arteriosclerosis.

The authors next propose a recommended diet and individual diet evaluation forms which will accomplish the following:

1. Inform the individual on the approximate composition of his diet and what it supplies in the form of carbohydrate, animal fat, vegetable fat, and protein.
2. Inform the individual as to its approximate caloric intake.
3. Serve as a nutritionally sound basis for altering diet to be more effective in reducing the risk of coronary artery disease.

A personal dietary evaluation form is provided for the reader to evaluate his own diet with respect to carbohydrates, proteins, and high and low saturated fats.

There follow charts of food values for typical servings for use in the diet evaluation.

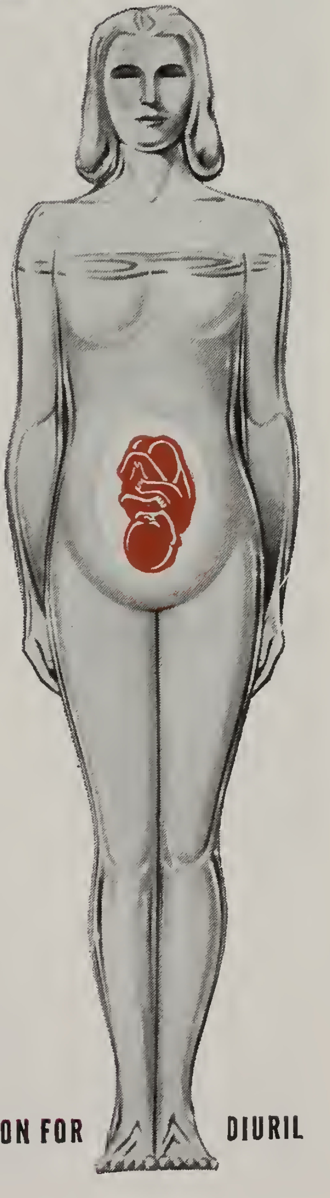
Other chapters include: The Recommended Diet; How to Alter Present Diet; The Use of Vegetable Oil in Diet; Practical Methods and Recipes for Carbohydrate Substitution; and Comments on the Nutritional Adequacy of the Recommended Diet.

(*Continued on page 48*)

pregnancy

....caused an excellent diuresis, with reduction of edema, weight, blood pressure, and albuminuria...."

ANY INDICATION FOR DIURESIS IS AN INDICATION FOR DIURIL



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Book Reviews

(*Continued from page 44*)

Despite the controversial nature and slight inconsistencies found in the first portion of the book, the sections of the book dealing with evaluation of the diet, food values, and substitution technics are practical and clearly presented. This book is well recommended for physicians and laymen who are seriously following a diet in an attempt to lower blood lipoprotein levels.

James E. Chapman, M.D.

Clinical Obstetrics and Gynecology. A Quarterly Book Series. Vol. 1, No. 2. Toxemias of Pregnancy, edited by Louis M. Hellman, M.D. Fibromyomas of the Uterus, edited by Robert A. Kimbrough, M.D. Price, $18.00 subscription for 4 consecutive numbers. Pp. 544. New York: Hoeber-Harper, 1958.

The second number of Clinical Obstetrice and Gynecology, like the first number, is a new method of condensing and summarizing the latest thoughts of various experts on specific subjects for the busy clinician. The publisher is again to be commended on a well set up, easy-to-read volume. There is one glaring typographical error. The principal headings in the list of contents are reversed. However, this may have the effect of simply stirring up the reader.

Dr. Bonsness' chapter on Fluid Metabolism has some excellent fundamental definitions. The chapter by Seitchik simply emphasizes that we know very little about fluid and the electrolyte in the metabolism of pregnancy. I liked Dr. Chesley's use of the term "tubular rejection" in his discussion of the mechanism of sodium excretion—a term I think should be more widely adopted. In Dr. McCall's chapter on Circulation of the Brain, there is particular value from the standpoint of therapeutics, where he corrects a number of ideas that were previously taught regarding the physiology and treatment of toxemia in its relation to cerebral circulation. Dr. Browne's work in the Uterine Circulation is well dicussed and well demonstrated with his graphs. The photomicrographs of placental pathology, I think, are again poorly reproduced. Dr. Vann's chapter on the Endocrine Aspects of Toxemia is excellent. She also protrays her findings in easily understood graphs. Dr. Hamlin's ideas expressed in his chapter on Prophylaxis Against Toxemia is certainly not new but bears repeating whenever possible. I think Dr. Assali's chapter on Treatment of Eclampsia and Preeclampsia is excellent. The discussion on the Causes of Maternal Death in Toxemia is very dispassionate in its approach, quite different from that of the clinician. Dr. Sheehan tends to be quite dogmatic.

The field of Fibromyomas is certainly beautifully covered in the last half of the volume.

Dr. Morton seems to like the double negative too well. I enjoyed Dr. Everett's chapter on the Relation of the Urinary Tract to the Myomas; his statistics are par-

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Book Reviews

(*Continued from page 48*)

ticularly enlightening. In Dr. Kimbrough's chapter, his paragraph on ovarian consideration is outstanding.

I was surprised to find so much space devoted to irradiation and its relationship to the myoma. Drs. Israel's and Mutch's chapter on Myomectomy is full of excellent information. Dr. Counsellor's on Technic of Vaginal Hysterectomy is well expressed, his illustrations simple and easy to understand. Dr. TeLinde expresses as well as we have seen the ever-present question of relationship of diagnostic curettage prior to abdominal hysterectomy.

The best part of the discussion of myomas was saved until last in the chapter by Drs. Barter and Parks on Myoma Uteri Associated with Pregnancy. This is an outstanding discussion, beautifully illustrated.

Albert S. Bright, M.D.

Diseases of the Esophagus. J. Terracol and Richard H. Sweet. Price, $20.00. Pp. 682, with 408 illustrations. Philadelphia: Saunders, 1958.

Dr. Sweet, Associate Clinical Professor of Surgery at Harvard, has translated, edited and amplified the work of Professor Terracol of the Medical Faculty of Montpellier, France. The original work of Professor Terracol and his several collaborators first appeared in 1941, with a later revision in 1951. His present revised edition is the first American edition representing the combined efforts of the endoscopist and surgeon to illuminate the subject of diseases of the esophagus. It brings to bear all available knowledge on this increasingly important subject.

The volume is a veritable storehouse of detail, admirably arranged for easy reading or reference. It is profusely illustrated with photographs and drawings to make each point clear. The student will find the explanations, figures, and clear detailing of diagnostic points and treatment easy to study. The medical man and/or endoscopist will enjoy the skillful review of details which time inevitably blurs. The surgeon will profit from the up-to-date data on surgical technic.

Dr. Sweet has culled and boiled down the essence of Professor Terracol's work and added enough from his own experience to make this an outstanding text. The chapters on bougienage and esophagoscopy reveal admirable detail but are still brief. The discussion of congenital abnormalities and tumors of the esophagus is comprehensive. Mechanical disturbances of the esophagus are very fully covered and will interest anyone who thinks of this organ as an insignificant passageway. The chapter on removal of foreign bodies is outstanding. A very complete bibliography for additional study is appended.

Altogether this is a text which every student and doctor should have in his library.

Erwin Steinman, M.D.

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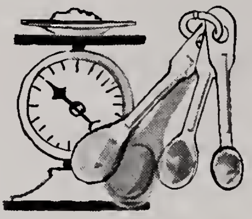
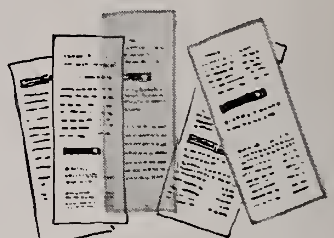


Measured Amounts

Fitting Casseroles

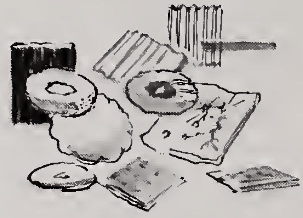


Food Exchange List

Punctual Meals

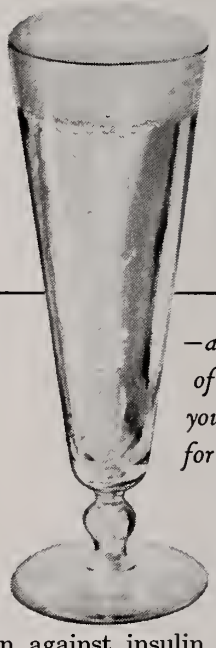
Light Snack

Safety Measure



Low-Calorie Nibbles

Varied Choice



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The Diabetic Diet

A measured diet is vital. Portions should be served in dishes that fit the serving. A small portion on a large plate is not a happy prospect. A food exchange list provides variations in diet. Insulin demands food with the urgency and regularity of an alarm clock.

If dinner is late, suggest a light snack at the usual mealtime with corresponding caloric reduction in the delayed meal. Hard candies do well as a precaution against insulin reaction. Plan low calorie wafers when others nibble canapés or chocolates. Above all, give your patient a variety of his food preferences.

And with a glass of beer*—at your discretion—your patient will find his diet interesting and ample without straying from instructions.

*Carbohydrate 9.4 Gm; Protein 0.8 Gm; Calories 104/8 oz. (Average of American Beers)

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If you'd like reprints of this and 11 other dietary suggestions, please write United States Brewers Foundation, 535 Fifth Avenue, New York 17, N. Y.

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